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Techniques to Aid DoD Writers in Developing User-Oriented Directives

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This report draws upon findings from document design research to identify key features of effective work-oriented documents and presents techniques writers can use to identify potential users and their diverse needs for information. A technique is presented for structuring and monitoring organization of drafts to produce a document that effectively addresses the users' needs. Guidelines are presented for deciding when special formats should supplement or replace standard text. The report also presents key features of clear writing reflected in structuring of sentences and paragraphs and in choice of words.

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Research Product 90-33

Techniques to Aid DoD Writers in Developing User-Oriented Directives

Richard P. Kern, V. Melissa Holland, Joan Harman, and Sally Bell

U.S. Army Research Institute

The Secretary of Defense has established a Regulatory Relief Task Force (RRTF) to streamline the overgrown body of documents governing the DoD acquisition process. One objective of RRTF is to ensure that revised and future documents are written in a clear and concise fashion. The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) was asked to assist RRTF by developing guidelines for DoD writers to use in achieving this objective.

The guidelines developed by ARI focus on techniques writers can use in organizing and designing effective, user-oriented documents. These techniques are illustrated with numerous before and after examples and revision exercises drawn from original DoD acquisition directives. Copies of this notebook have been distributed to 200 DoD writers responsible for writing policy and procedural directives for each major area of the acquisition process.

The techniques presented in this notebook for organizing and designing effective documents were derived from findings in research on document design. While the examples used in this notebook focus on DoD policy and procedural documents, they also apply to task and user-oriented writing.

EDGAR M. JOHNSON
Technical Director

TECHNIQUES TO AID DOD WRITERS IN DEVELOPING USER-ORIENTED DIRECTIVES

CONTENTS

TECHNIQUES TO AID DOD WRITERS IN DEVELOPING USER-ORIENTED DIRECTIVES

INTRODUCTION

ARI OBJECTIVE:

Provide you with techniques that effective writers find useful in producing clear organization, clear writing, and well-informed readers.

FOCUS OF THE WORKSHOP:

- WHAT ARE KEY FEATURES OF AN EFFECTIVE DOCUMENT?
- HOW DO WRITERS DEVELOP EFFECTIVE DOCUMENTS?
- WHAT ARE KEY FEATURES OF CLEAR WRITING?

WHAT ARE KEY FEATURES OF AN EFFECTIVE DOCUMENT?

HOW CAN YOU IDENTIFY AN EFFECTIVE DOCUMENT?

Research Perspective. As research psychologists, our perspective on what makes a document effective is based on research dealing with document design, the writing process, and how people use technical documents in their work. In research we can collect data comparing writers, their documents, and their readers. Effectiveness of documents can be defined in terms of measureable effects on readers' comprehension, speed of access, time to read, and retention of information.

Writers' Perspective. As a writer, you need a way of judging the probable effectiveness of a document before you submit it for publication. We will first introduce two key features of effective documents - the way the content in the document is organized and the types of displays used in presenting the information. We will then present techniques writers have found useful in developing these key features.

OVERVIEW - TWO KEY FEATURES THAT IDENTIFY AN EFFECTIVE DOCUMENT

• CAN THE READER USE THE TABLE OF CONTENTS AS A MAP OF THE DOCUMENT?

While doing their work, people use documents to guide their planning or to provide procedures for performing their job activities. Not surprisingly, research on use of work-related documents identifies effective documents as those organized to explicitly relate the content to

what the readers know, what they don't know, and what they have to do.

A Table of Contents provides a map of the document. Does it lay out a hierarchial structure that tells the reader what the major points are and, for each, what the supporting points are that need to be considered? Is this structure focused to help readers identify what they need to know and what they have to do?

When does a Table of Contents Provide a Useful Readers' Map?

Example 2-1. Map of a document that provides only general categories of information.

TITLE: INVENTORY MANAGEMENT POLICIES

TABLE OF CONTENTS

I. PURPOSE
II. SCOPE AND APPLICABILITY
III. DEFINITIONS
IV. POLICIES
V. CANCELLATION
VI. IMPLEMENTATION
VII. EFFECTIVE DATE

Note that this is not a readers' map but is a general format, that with minor variations, has been used to structure all Defense Department Directives. Thus, a readers' decision to use a specific document is based on the title. Because these headings reflect the level to which the content is structured, all readers who have anything to do with inventory management will have to puzzle out how this content is related to their concerns.

Example 2-2. Improved structure to help users travel through the map.

TITLE: INVENTORY MANAGEMENT POLICIES

TABLE OF CONTENTS

I. PURPOSE
II. SCOPE AND APPLICABILITY
III. DEFINITIONS
    A. Inventory Control Point
    B. Retention Limit
    C. Peacetime Operating Stock
    D. Mobilization Reserve Stock
IV. POLICIES
    A. Supply Records Maintained in Each Military Service
    B. Inventory Control Points
        1. Scope and Types of Inventory Control Reports
        2. Types and Frequency of Inventories Required
            (a) Determine Current and Future Demands for Items
            (b) dentify Excess Items
            (c) Separate Serviceable from Unserviceable Stock
        3. Positioning of Materiel
            (a) Scheduling Transportation
            (b) Storing Mobilization Reserve Stocks
        4. Controlling Entry of Items Into the Inventory
            (a) Nonstandard Items
            (b) Replacement Items

A reader can use this Table of Contents as a map of the document. It informs the reader that these policies are aimed at managers in the Inventory Control Point and identifies the specific types of concerns that they address.

- **ARE SPECIAL FORMATS USED THAT IMPROVE READERS ACCESS TO THE INFORMATION?**

Most information in a document is presented in tradional text. However, in some cases, the type of information being conveyed could be more effectively presented, for example, in a matrix table, a flow chart, or a decision tree.

Example 2-3. **First draft vs. use of a Matrix Table in the revised version.**
(Next two pages)

Study the next 2 pages and note how the new strategy for organizing and presenting this information helps the reader easily identify each position, the requirements of the position, and who selects the person to fill the position.

PEO-PM chain. The foregoing does not preclude establishing a Component
level board, council, or committee to facilitate review and decisionmaking
(see paragraph 3.f., below). Nor does it require the establishment of a
separate financial management system for such programs.

b. Service Acquisition Executive (SAE). Military Department Heads
shall designate a single civilian official, at the Assistant Secretary-level
within their Military Departments, as the SAE. The SAE shall also be
designated as the senior procurement executive for the purposes of section
16 (3) of P.L. 98-191 (reference (h). Within the Military Departments, each
SAE will have full-time responsibility for implementing USD(A) milestone
decisions and administering all Service acquisition functions in accordance
with broad policy guidance from the USD(A) -- these functions shall be
conducted within the Service Secretariats only and shall not be duplicated
in the Service Chief's organizations. The term SAE as used in this
Directive also applies to the senior acquisition executive within any other
DoD Component having cognizance over an acquisition program.

c. Program Executive Officers (PEOs). PEOs will be selected by
DoD Component Heads, with the advice of the SAEs who will have primary
responsibility for evaluating PEOs' job performance. Within each Military
Department, the SAE will manage all ACAT I programs through PEOs, each of
whom will have a small, separate staff organization and devote full-time
attention to management of their assigned programs and related technical
support resources. PEOs may be either military or civilian officials, shall
have no other command or staff responsibilities within their respective
Military Departments, and shall only report to and receive guidance and
direction from the SAE.

d. Program Managers (PMs). PMs will be selected by DoD Component
Heads, with the advice of the SAEs and PEOs who shall be responsible for
evaluating their performance. They shall be vested with broad
responsibility for and commensurate authority over their major defense
acquisition programs, and shall report for these purposes exclusively to
their respective PEOs, or in the case of direct reporting PMs, their SAEs.

e. Military Department Logistics, Systems, and Materiel Commands.
The logistics, systems, and materiel commands of the Military Departments
shall be organized with a primary focus on three roles: providing necessary
logistical support; managing ACAT III or IV programs as determined by the
DoD Component Head or SAE; and providing a variety of support services to
PEOs and PMs, while duplicating none of their management functions and
responsibilities. Further, funding and personnel authorizations for PEO
offices, and those of the PMs reporting to them or the SAE, shall be
administered separately from the systems, materiel, and logistics commands.

f. Component Acquisition Board, Council, or Committee and
Milestone Review Process. DoD Component Heads shall charter a Component
level acquisition board, council, or committee to facilitate acquisition
program reviews and decisionmaking. This body, in so far as practicable,
shall parallel the DAB in terms of its functions, operations, and
streamlined membership. Additionally, Component Heads are to establish a
streamlined Milestone review process within their Components which limits

NOTE: | ACAT I programs are "major programs" as defined by Section 2430 of Title 10, U.S. Code, "Major Defense Acquisition Programs Defined." ACAT II, III, and IV programs are commonly called "non-major" programs.

2. **DoD Component Acquisition Management Organization**. DoD Component Heads shall establish clear, abbreviated lines of authority within their components for managing acquisition programs.

    a. Program direction and guidance for ACAT I programs, to include all matters relating to cost, schedule, performance, and funding, shall only be issued by and flow through the SAE-PEO-PM chain.

    b. Funding and personnel authorizations for PEO offices, and those of the PMs reporting to them or the SAE, shall be administered separately from the systems, materiel, and logistics commands.

    c. The matrix below indicates the structure and specific requirements of the DoD Component acquisition management organization.

DOD COMPONENT ACQUISITION MANAGEMENT STRUCTURE

ACQUISITION OFFICIAL	SELECTED BY	REQUIREMENTS
Service Acquisition Executive (SAE)	• DoD Component Head	• Single civilian official at the Assistant Secretary level • Full-time responsibility for administering all Service acquisition functions – these functions shall be conducted within the Service Secretariats only and shall not be duplicated in the Service Chief's organizations • Directs all ACAT I programs through PEOs or direct reporting PMs • Directs all ACAT II programs through PEOs or the Commanders of the Military Department Systems, Logistics, or Materiel commands
Program Executive Officer (PEO)	• DoD Component Head with the advice of the SAE	• Must have a small, separate staff organization and devote full-time attention to management of assigned programs • Shall have no other command or staff responsibilities within their respective Military Departments • Shall report to and receive guidance and direction from the SAE only • May direct ACAT II, III, IV programs as determined by the Component Head or SAE • Must be evaluated directly by the SAE
Program Manager (PM) - ACAT I Programs	• DoD Component Head with the advice of the SAE and PEOs	• Must report to a PEO or, in the case of direct reporting PMs, the SAE
Program Manager (PM) - ACAT II, III & IV Programs	• DoD Component Head designated selection procedures	• Must have no more than two management tiers to the designated program decision authority

Commanders of Systems, Logistics, and Materiel Commands	• DoD Component Head with advice of the Service Chief and SAE	• Shall focus on following three roles:
		  •• Providing necessary logistical support
		  •• Directing ACAT II, III, and IV programs as determined by the DoD Component Head or SAE
		  •• Providing a variety of support services to PEOs and PMs, while duplicating none of their management functions and responsibilities

Example 2-4. Use of a modified Flow Chart to guide the reader through each phase of the entire process.
(Next page)

This information was not brought together in the first draft to provide an overview of the entire acquisition management process. Note the flow chart at the top of the page. It is used in this revision to enable the reader to keep track of where they have been and where they are going as they proceed through this process. In addition, note that the important information for each phase is presented in a matrix table.

b. These needs flow out of the requirements generation and PPBS (Planning, Programming, and Budgeting System) processes as illustrated below.
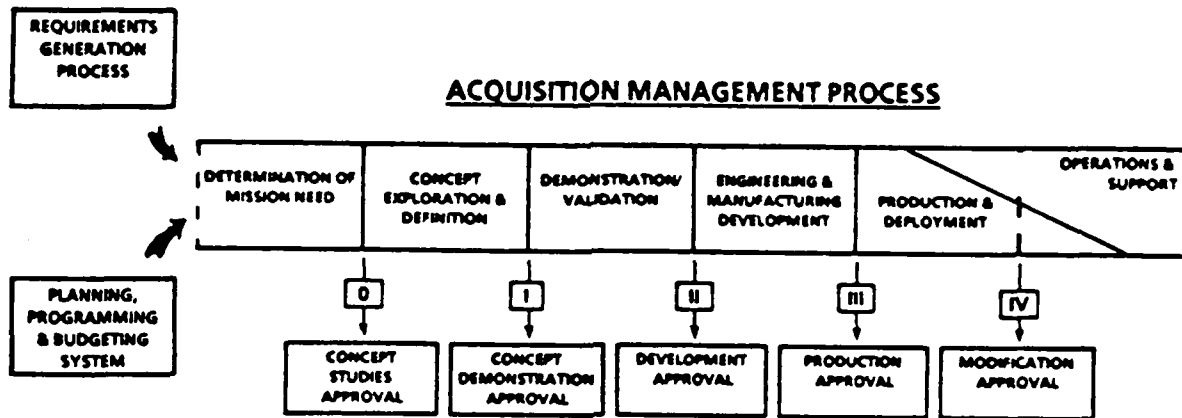
c. The matrix below highlights the major focus of activities and features of this phase and its end products.

DETERMINATION OF MISSION NEED PHASE

FOCUS OF ACTIVITIES/KEY FEATURES	END PRODUCTS
GENERAL • Planning, research, and analysis efforts focus on identifying: •• Operational deficiencies resulting from changes in threat or national defense policy •• More effective means of performing assigned missions to include significantly reducing ownership costs • Operational deficiencies identified must first be examined to determine if they can be satisfied by a non-materiel solution. Non-materiel solutions include changes in: •• Doctrine and tactics •• Training •• Organization • Broad statements of mission need are submitted to the appropriate decision authority for those operational deficiencies that can not be corrected by a non-materiel solution	**GENERAL** • Statements of mission need that: •• Are expressed in terms of broad operational capabilities, not system specific solutions •• Indicate the priority of each need from the proponent's view relative to other documented needs and unfunded requirements • Proposed exit criteria tnat must be satisfactorily accomplished prior to Milestone I
ACAT I PROGRAMS • Mission needs for potential ACAT I programs must be assessed in terms of their contribution to: •• The priority capability objectives contained in the Defense Planning Guidance, and/or •• Overall warfighting capability and the accomplishment of national military strategy and objectives	**ACAT I PROGRAMS** • Special documentation requirements (see Part __ for details): •• Mission Need Statement (MNS) prepared by the proponent •• Joint Requirements Oversight Council (JROC) assessment of each MNS

Example 2-5. Use of a Decision Tree to trace an evaluation process.

Displays like this make the sequence in the process, decision points, criteria and branching more easily understood than if presented in a series of sub-paragraphs.

NDI - MANPRINT EVALUATION PROCESS
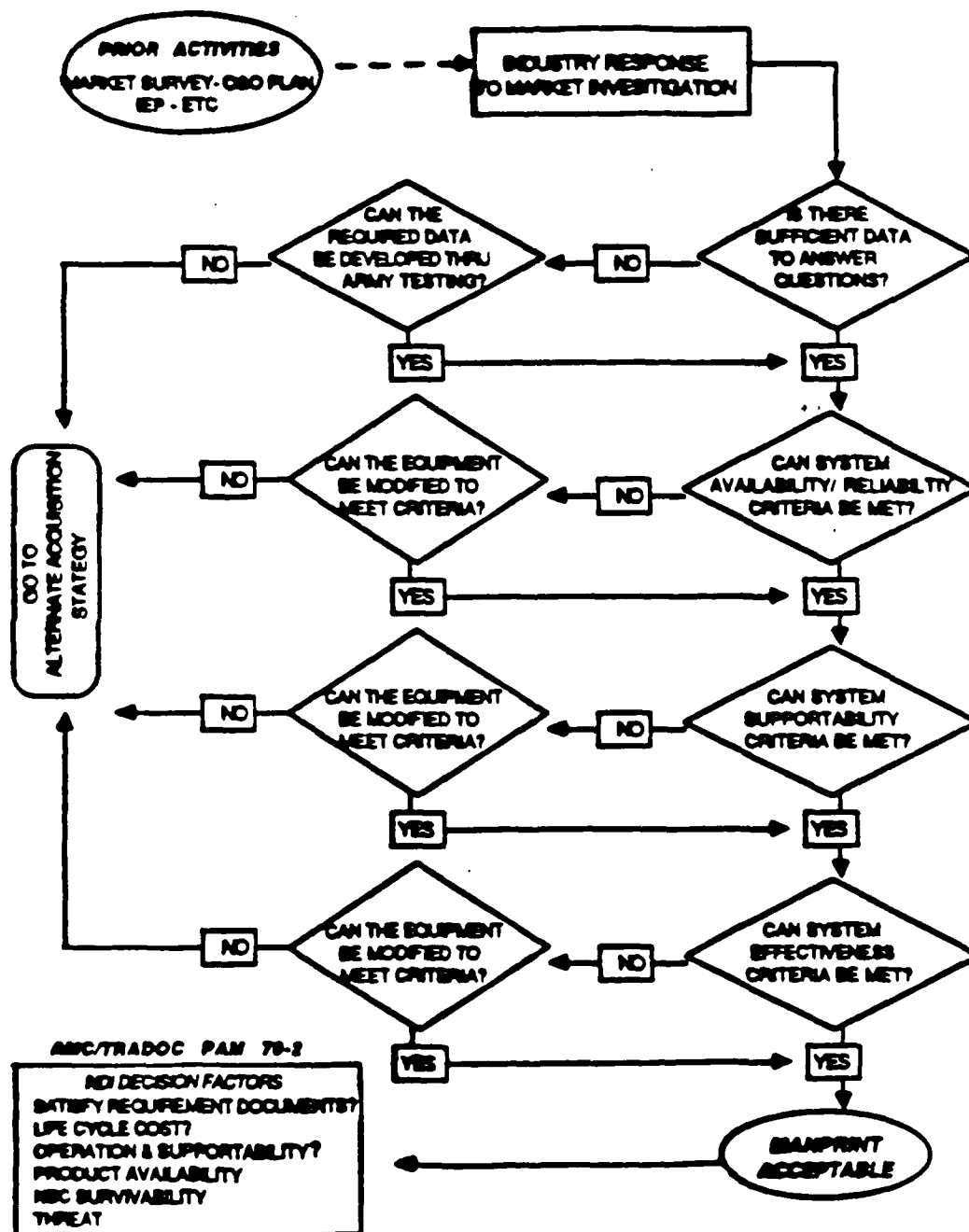
HOW DO WRITERS DEVELOP EFFECTIVE DOCUMENTS?

Research shows that writers who produce effective documents spend proportionately more of their time (30-60% more) in planning and revising content than writers who are not successful.

In addition, this proportionately greater effort in planning and revising pays off with a large reduction in readers' errors (ranging around 50%) in finding and interpreting important points in the documents.

Research reveals that there is no one set of steps used by effective writers during the writing process. However, they do use a wide variety of techniques in achieving their two main goals:

- **content, organized to address what the readers know, what they don't know, and what they have to do with the information,**

- **formats that enable the readers to easily find and understand the information presented.**

TECHNIQUES TO MAKE THE ORGANIZATION CLEAR TO THE READER

A Table of Contents should make explicit the structure of the entire document and its focus on diverse users and their concerns. You probably have readers whose concerns differ across levels of management as well as across the types of management functions they perform. A well constructed Table of Contents should serve as a map of the document that allows these different readers to locate and identify how the content is interrelated and what is most important for them to attend to.

• A TECHNIQUE FOR FOCUSING ON THE READERS

What does a Table of Contents need to contain to serve as a useful map to the reader? To answer this question you first need to know who is expected to use your document. This may be partially answered by the type of subject matter that will be in your document. However, in your business, it appears that any given type of subject matter cuts across a wide range of job positons, levels of management, and types of management functions performed.

One technique writers have found helpful in identifying their users and how they will use the document is to develop a matrix. Here is one example of such a matrix:

Example 3-1. Developing a Matrix to identify readers.

Column Headings: Write in the column headings each type of reader (for example, job position) you think will need to use your document. If it's likely that readers' use will differ at different levels of management, you should make separate matrices for each level.

Row legends: List in the row headings the major topics that you are planning to address in your document.

You now want to identify which types of readers will need to work with each topic, and if so, whether or not the topic will be new to them.

To accomplish this, go across rows, entering check marks to identify each type of reader for whom this topic will be important. Circle the checkmark if this topic will be new to this type of readers. This circle raises a flag to warn you that unless this information is clearly related to what this type of readers do, or are expected to do, they may be unable to see its importance.

As you can see, this technique does not provide automatic answers. It encourages you to create scenarios for playing out how these various readers might interact with your document in trying to understand it and use it. What this can do then, is to guide and reflect your thinking about:

- **who your readers are,**

- how your content relates to what they do and are expected to do,

- what these readers will and will not know, and

- what questions these readers will expect you to answer.

EXAMPLE: Developing a Matrix to Identify Readers

Use each column to identify a different type of reader

Enter topics or concepts in row headings	Group A	Group B	Group C	Group D
Topic/Concept 1	⊗		X	
Topic/Concept 2		⊗	X	X
Topic/Concept 3	⊗	X		
Topic/Concept 4	⊗	X	X	X

- Enter each type of reader in the column headings.

- List in the row headings the major topics you plan to address.

- Enter checkmarks to identify each type of reader for whom the topic will be important.

- Circle the checkmark if the topic will be new to that type of reader.

• A TECHNIQUE FOR USING READERS' MAPS TO EFFECTIVELY STRUCTURE DOCUMENTS

A technique effective writers find helpful during the writing process is to periodically develop a readers' map based on the present status of the draft. This helps the writer identify gaps, breakdowns in the logical structure, or a draft that is talking to the writer rather than the readers.

Think of a Table of Contents as representing a readers' map of the document. What does it need to contain to serve as a useful map for the readers?

o   the type and level of management addressed
o   the subject of each policy or procedure presented
o   the specific conditions (if any) which require different policies or procedures.

Using the Table of Contents as a readers' map, I'm going to illustrate how some writers use the "readers' map" technique during writing to make organization and structure of the contents explicit to the readers.

Example 3-2. A map that hides the contents from the readers.

TITLE: INVENTORY MANAGEMENT POLICIES

DRAFT READERS' MAP

I.   PURPOSE
II. SCOPE AND APPLICABILITY
III. DEFINITIONS
IV. POLICIES
V.   CANCELLATION
VI. IMPLEMENTATION
VII. EFFECTIVE DATE

If the writer had looked at the draft and produced this as a readers' map the text in the Policy section would look something like this: (see next 2 pages)

Example 3-3. Text that hides the contents from the readers.

IV. POLICIES

A. Each military service shall maintain supply records that show quantity and monetary value of each of four types of items held: peacetime operating stocks, mobilization reserve stocks, economic retention stocks, and excess stocks.

B. Inventory Control Points are responsible for the worldwide inventory and inventory control reports for items under their control. Special reports must be made on items whose quantity is not reported in periodic inventory status reports. These special reports must include information on value and groupings of items and be made often enough to ensure sound evaluation and control of inventory. Each Inventory Control Point is also responsible for reporting on items that are being used in tactical command operations (see reference d).

C. With the assistance of transportation specialists, Inventory Control Points will schedule materiel distribution to avoid cross and back hauling and minimize aggregate inventory holdings.

D. Inventory Control Points shall minimize the number of nonstandard items entering supply systems and shall take action to dispose of those items when they are no longer useful. Nonstandard items can be retained if they qualify as contingency retention stock (see par. 3H, reference b).

E. Replacement items will be phased into the supply system to allow continued use of obsolete items and their repair parts. When use of obsolete items is no longer practical or economical, remaining stocks will be declared in excess and removed from the supply system. Exceptions to phasing in of replacement items may be made only to safeguard life, health, morale, or military capability.

F. The military services shall store, locate, and protect mobilization reserve stocks to support mobilization and emergency war plans.

G. Using criteria provided by the military service supply manager, each Inventory Control Point shall periodically review the current and future demands for each item under its control. Frequency of review will

depend on the type and value of the item and the rate of issue of the item. Items of significant demand must be reviewed at least once annually.

H. Using criteria provided by the military service supply manager, each Inventory Control Point shall identify excess items under its control. Local excess will be picked up in appropriate stock record accounts. Excess system materiel may proceed directly to the appropriate channel. The quantity of any item that exceeds the authorized retention limit will be declared in excess.

I. To ensure readiness and reliability, materiel controlled by supply and storage activities must be periodically evaluated for quality. Unserviceable materiel must be identified and classified as unserviceable within a given time period. Stock records must reflect the separation of serviceable from nonserviceable stock.

Notice that a listing like this is difficult to read. Each subparagraph must be read to identify what it's talking about. Let's see what is gained by adding subparagraph headings that identify the subject in each subparagraph. (see next 2 pages)

Example 3-4.   Text revised to signal content of the items.

IV. POLICIES

A. Supply Records. Each military service shall maintain supply records that show quantity and monetary value of each of four types of items held: peacetime operating stocks, mobilization reserve stocks, economic retention stocks, and excess stocks.

B. Inventory Reports. Inventory Control Points are responsible for the worldwide inventory and inventory control reports for items under their control.   Special reports must be made on items whose quantity is not reported in periodic inventory status reports.   These special reports must include information on value and groupings of items and be made often enough to ensure sound evaluation and control of inventory.   Each Inventory Control Point is also responsible for reporting on items that are being used in tactical command operations (see reference d).

C. Distribution of Materiels. With the assistance of transportation specialists, *Inventory Control Points will schedule materiel distribution* to avoid cross and back hauling and minimize aggregate inventory holdings.

D. Limiting Nonstandard Items. Inventory Control Points shall minimize the number of nonstandard items entering supply systems and shall take action to dispose of those items when they are not longer useful.   Nonstandard items can be retained if they qualify as contingency retention stock (see par. 3H, reference b).

E. Phasing In of Replacement Items. Replacement items will be phased into the supply system to allow continued use of obsolete items and their repair parts.   When use of obsolete items is no longer practical or economical, remaining stocks will be declared in excess and removed from the supply system.   Exceptions to phasing in of replacement items may be made only to safeguard life, health, morale, or military capability.

F. Storing Mobilization Reserve Stocks. The military services shall store, locate, and protect mobilization reserve stocks to support mobilization and emergency war plans.

G. Determine Current and Future Demands for Items. Using criteria provided by the military service supply manager, each Inventory Control Point shall periodically review the current and future demands for each item under its control. Frequency of review will depend on the type and value of the item and the rate of issue of the item. Items of significant demand must be reviewed at least once annually.

H. Identify Excess Items. Using criteria provided by the military service supply manager, each Inventory Control Point shall identify excess items under its control. Local excess will be picked up in appropriate stock record accounts. Excess system materiel may proceed directly to the appropriate channel. The quantity of any item that exceeds the authorized retention limit will be declared in excess.

I. Separate Serviceable from Unserviceable Stock. To ensure readiness and reliability, materiel controlled by supply and storage activities must be periodically evaluated for quality. Unserviceable materiel must be identified and classified as unserviceable within a given time period. Stock records must reflect the separation of serviceable from nonserviceable stock.

Now, I have used this draft as the basis for constructing another readers' map. (see next page)

Does the revised map provide a useful readers' map?

- **Can the reader see what each paragraph will talk about?**

- **Is it organized to show readers which types and/or levels of management the various paragraphs address?**

- **Does it assist the reader by organizing related policies addressing the same readers into functional clusters?**

Example 3-5. A revised map with improved signaling.

TITLE: INVENTORY MANAGEMENT POLICIES

REVISED READERS' MAP

I. PURPOSE
II. SCOPE AND APPLICABILITY
III. DEFINITIONS
    A. Inventory Control Point
    B. Retention Limit
    C. Peacetime Operating Stock
    D. Mobilization Reserve Stock
IV. POLICIES
    A. Supply Records
    B. Inventory Reports
    C. Distribution of Materiels
    D. Limiting Nonstandard Items
    E. Phasing-In of Replacement Items
    F. Storing Mobilization Reserve Stocks
    G. Determine Current and Future Demands for Items
    H. Identify Excess Items
    I. Separate Serviceable from Unserviceable Items
V. CANCELLATION
VI. IMPLEMENTATION
VII. EFFECTIVE DATE

The subparagraph headings certainly make it easier to scan over this section to identify what concerns are being addressed. However, there are 2 remaining problems:

1. **Who these policies are aimed at is obscure,** the reader must study the document to determine if all, only some, or none of these policies are aimed at his or her level or type of inventory management.

2. In addition, **the lack of grouping of related subjects in the listing** leaves the reader with the problem of how to organize this in order to remember what it was all about.

These two problems characterize what is produced when the writer falls into the trap of writing to his or her self. This has been called "topic-oriented" as opposed to "user-oriented" writing.

Using readers' maps as a technique during writing can help make these problems explicit. In this next example, the writer has used the **readers' map (Example 3-5) as a guide while reviewing the subparagraphs** in Example 3-4. This has led the writer to decide that all, except one, **address level of mangement at the Inventory Control Point.** The writer then **clustered** the subparagraphs **into logical categories** and **labeled these categories** to produce the **next draft of a readers' map (Example 3-6) and the revised text** (Example 3-7).

Example 3-6. A new readers' map that signals and structures the contents for the readers.

TITLE: INVENTORY MANAGEMENT POLICIES

Another Revision of the READERS' MAP

I.   PURPOSE
II. SCOPE AND APPLICABILITY
III. DEFINITIONS
    A.   Inventory Control Point
    B.   Retention Limit
    C.   Peacetime Operating Stock
    D.   Mobilization Reserve Stock
IV. POLICIES
    A.   Supply Records Maintained in Each Military Service
    B.   Inventory Control Points
        1.   Scope and Types of Inventory Control Reports
        2.   Types and Frequency of Inventories Required
            (a) Determine Current and Future Demands for Items
            (b) Identify Excess Items
            (c) Separate Serviceable from Unserviceable Stock
        3.   Positioning of Materiel
            (a) Scheduling Transportation
            (b) Storing Mobilization Reserve Stocks
        4.   Controlling Entry of Items Into the Inventory
            (a) Nonstandard Items
            (b) Replacement Items

This is a revision of Example 3-5. This map informs the reader that these policies are aimed at managers in the Inventory Control Point and identifies the specific types of concerns that they address. The draft text would look like this: (see the next 2 pages)

Example 3-7. Text revised by following the new readers' map.

IV. POLICIES

A. Supply Records Maintained in Each Military Service.

Each military service shall maintain supply records that show quantity and monetary value of each of four types of items held: peacetime operating stocks, mobilization reserve stocks, economic retention stocks, and excess stocks.

B. Inventory Control Points.

1. Scope and Types of Inventory Control Reports. Inventory Control Points are responsible for the worldwide inventory and inventory control reports for items under their control. Special reports must be made on items whose quantity is not reported in periodic inventory status reports. These special reports must include information on value and groupings of items and be made often enough to ensure sound evaluation and control of inventory. Each Inventory Control Point is also responsible for reporting on items that are being used in tactical command operations (see reference d).

2. Types and Frequency of Inventories Required.

(a) **Determine Current and Future Demands for Items.** Using criteria provided by the military service supply manager, each Inventory Control Point shall periodically review the current and future demands for each item under its control. Frequency of review will depend on the type and value of the item and the rate of issue of the item. Items of significant demand must be reviewed at least once annually.

(b) **Identify Excess Items.** Using criteria provided by the military service supply manager, each Inventory Control Point shall identify excess items under its control. Local excess will be picked up in appropriate stock record accounts. Excess system materiel may proceed directly to the appropriate channel. The quantity of any item that exceeds the authorized retention limit will be declared in excess.

(c) **Separate Serviceable from Unserviceable Stock.** To ensure readiness and reliability, materiel controlled by supply and storage activities must be periodically evaluated for quality. Unserviceable materiel must be identified and classified as

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unserviceable within a given time period. Stock records must reflect the separation of serviceable from nonserviceable stock.

3. Positioning of Materiel

(a) **Scheduling of Transportation.** With the assistance of transportation specialists, Inventory Control Points will schedule materiel distribution to avoid cross and back hauling and minimize aggregate inventory holdings.

(b) **Storing Mobilization Reserve Stocks.** The military services shall store, locate, and protect mobilization reserve stocks to support mobilization and emergency war plans.

4. Controlling Entry of Items Into the Inventory.

(a) **Nonstandard Items.** Inventory Control Points shall minimize the number of nonstandard items entering supply systems and shall take action to dispose of those items when they are not longer useful. Nonstandard items can be retained if they qualify as contingency retention stock (see par. 3H, reference b).

(b) **Replacement Items.** Replacement items will be phased into the supply system to allow continued use of obsolete items and their repair parts. When use of obsolete items is no longer practical or economical, remaining stocks will be declared in excess and removed from the supply system. Exceptions to phasing in of replacement items may be made only to safeguard life, health, morale, or military capability.

Top level headings provide signals that tell the reader what the entire section is about. Paragraph and, when present, subparagraph headings are signals that tell the reader what comes under or is part of the higher level heading. These levels of headings makes the structure explicit to the reader. If what is high and what is low in this hierarchial structure is consistent with the readers' perspectives, then it provides the readers with an effective map of the document.

Research on comprehension and retention of text has found this type of signaling the single most important contributor to improved comprehension and retention of the text.

REORGANIZING AND FORMATTING TEXT TO IMPROVE THE READERS' UNDERSTANDING

Example 3-8.   A section from a first draft.   (pages 3-14 through 3-16)

The writer's task was to develop one document that would replace 37 or so separate documents. Looking at this earlier version (the next 3 pages) you can see that the writer has apparently, first, assembled information, then sorted information that shared some type of relatedness into major clusters and, under each, sorted this information into subclusters.

9. <u>Operational Effectiveness</u>. The overall degree of mission accomplishment of a system when used by representative personnel in the environment planned or expected for operational employment of the system considering organization, doctrine, tactics, survivability, vulnerability, and threat (including countermeasures, nuclear, and chemical and/or biological threats).

10. <u>Operational Suitability</u>. The degree to which a system can be placed satisfactorily in field use with consideration given to availability, compatibility, transportability, interoperability, reliability, wartime usage rates, maintainability, safety, human factors, manpower supportability, logistics supportability, documentation, and training requirements.

E. <u>POLICIES GOVERNING DEFENSE ACQUISITION MANAGEMENT FRAMEWORK AND ORGANIZATION</u>

The following policies establish the defense acquisition management framework and organization for major and non-major defense acquisition programs.

1. <u>Acquisition Milestone Decision Points and Phases</u>. The acquisition milestone decision points and phases, highlighted below, establish the framework for managing defense acquisition programs. These phases and decisions points are to be tailored to meet the needs of individual programs consistent with sound business practices, common sense, and the degree of risk involved.

a. <u>Milestone 0 - Concept Direction</u>: Approval or disapproval of a proposal to conduct studies and enter the Concept Exploration/Definition Phase.

b. <u>Milestone I - Concept Approval</u>: Approval or disapproval to establish a new major defense acquisition program development effort and enter the Concept Demonstration/Validation Phase or preliminary design phase in the case of ships.

c. <u>Milestone II - Full Scale Engineering Development (FSED)</u>: Approval or disapproval to proceed into the FSED Phase and, as appropriate, the procurement of long lead items for low rate initial production or lead ship detail design and construction.

d. <u>Milestone III - Full Rate Production or Construction</u>: Approval or disapproval to proceed into the Full Rate Production Phase, or the Construction Phase in the case of follow ships and other programs. Initial deployment also marks the beginning of the Operations and Support Phase.

e. <u>Milestone IV - Major Upgrade or Modification</u>: Approval or disapproval to proceed with major modifications or upgrades to a system currently in production that meet the criteria established for a major defense acquisition program in paragraph D.3., above.

2. <u>Acquisition Program Categories and Decision Authorities</u>. DoD
acquisition programs, both major and non-major, are to be classified into
one of four acquisition categories (ACATs). These categories determine the
level of review, decision authority, and applicable procedures.

    a. <u>ACAT I</u>. This category includes all major defense acquisition
programs as defined in D.3., above.

        (1) ACAT I programs requiring a DAB review will be identified
by the USD(A) and designated ACAT ID. Decision authority for these programs
is the USD(A).

        (2) ACAT I programs delegated by the USD(A) to a DoD
Component Head for decision will be designated ACAT IC. Decision authority
for these programs may be delegated no further than the Service Acquisition
Executive (SAE).

        (3) A listing of ACAT IC and ID programs is to be published
quarterly by the USD(A).

    b. <u>ACAT II</u>. This category includes acquisition programs which are
expected to require an eventual total expenditure for research, development,
test and evaluation of more than $150 million (based on Fiscal Year 1990
constant dollars) or an eventual total expenditure for procurement of more
than $750 million (based on Fiscal Year 1990 constant dollars) and which do
not meet the requirements specified for ACAT I. DoD Component Heads and
SAEs may designate other programs to be ACAT II based on significant
warfighting capability or other special interest. Decision authority for
these programs shall be the cognizant DoD Component Head or SAE.

    c. <u>ACAT III</u>. This category does not have dollar thresholds.
Programs are assigned to this category based on their overall importance,
degree of risk involved, and need for higher management visibility and
decisionmaking as determined by each DoD Component Head or SAE. The level
of decision authority for this category may include Program Executive
Officers and the commanders of the Military Department logistics, systems,
and materiel commands as determined by the Component Head or SAE.

    d. <u>ACAT IV</u>. This category includes those acquisition programs not
otherwise designated as ACATs I, II or III. The level of decision authority
for programs in this category shall be at the lowest level deemed
practicable by the Component Head or SAE.

3. <u>DoD Component Acquisition Management Organization</u>. DoD Component
Heads shall establish clear, abbreviated lines of authority within their
components for managing acquisition programs.

    a. <u>General</u>. In each of the Military Departments, management
responsibilities for ACAT I programs shall flow through an experienced full-
time Service Acquisition Executive (SAE), through full-time Program
Executive Officers (PEOs), to individual Program Managers (PMs). Program
direction and guidance for such programs, to include all matters relating to
cost, schedule, technical performance, operational effectiveness and
suitability, and funding, shall only be issued by and flow through the SAE-

PEO-PM chain. The foregoing does not preclude establishing a Component level board, council, or committee to facilitate review and decisionmaking (see paragraph 3.f., below). Nor does it require the establishment of a separate financial management system for such programs.

b. <u>Service Acquisition Executive (SAE)</u>. Military Department Heads shall designate a single civilian official, at the Assistant Secretary-level within their Military Departments, as the SAE. The SAE shall also be designated as the senior procurement executive for the purposes of section 16 (3) of P.L. 98-191 (reference (h). Within the Military Departments, each SAE will have full-time responsibility for implementing USD(A) milestone decisions and administering all Service acquisition functions in accordance with broad policy guidance from the USD(A) -- these functions shall be conducted within the Service Secretariats only and shall not be duplicated in the Service Chief's organizations. The term SAE as used in this Directive also applies to the senior acquisition executive within any other DoD Component having cognizance over an acquisition program.

c. <u>Program Executive Officers (PEOs)</u>. PEOs will be selected by DoD Component Heads, with the advice of the SAEs who will have primary responsibility for evaluating PEOs' job performance. Within each Military Department, the SAE will manage all ACAT I programs through PEOs, each of whom will have a small, separate staff organization and devote full-time attention to management of their assigned programs and related technical support resources. PEOs may be either military or civilian officials, shall have no other command or staff responsibilities within their respective Military Departments, and shall only report to and receive guidance and direction from the SAE.

d. <u>Program Managers (PMs)</u>. PMs will be selected by DoD Component Heads, with the advice of the SAEs and PEOs who shall be responsible for evaluating their performance. They shall be vested with broad responsibility for and commensurate authority over their major defense acquisition programs, and shall report for these purposes exclusively to their respective PEOs, or in the case of direct reporting PMs, their SAEs.

e. <u>Military Department Logistics, Systems, and Materiel Commands</u>. The logistics, systems, and materiel commands of the Military Departments shall be organized with a primary focus on three roles: providing necessary logistical support; managing ACAT III or IV programs as determined by the DoD Component Head or SAE; and providing a variety of support services to PEOs and PMs, while duplicating none of their management functions and responsibilities. Further, funding and personnel authorizations for PEO offices, and those of the PMs reporting to them or the SAE, shall be administered separately from the systems, materiel, and logistics commands.

f. <u>Component Acquisition Board, Council, or Committee and Milestone Review Process</u>. DoD Component Heads shall charter a Component level acquisition board, council, or committee to facilitate acquisition program reviews and decisionmaking. This body, in so far as practicable, shall parallel the DAB in terms of its functions, operations, and streamlined membership. Additionally, Component Heads are to establish a streamlined Milestone review process within their Components which limits

Example 3-9. A readers' map made from the first draft.
(preceding 3 pages)

(Major Cluster) E. <u>POLICIES GOVERNING DEFENSE ACQUISITION</u>
<u>MANAGEMENT FRAMEWORK AND ORGANIZATION</u>

(Subcluster)   1. <u>Acquisition Milestone Decision Points and Phases</u>

(Items)   a. <u>Milestone 0 - Concept Direction</u>
                    b. <u>Milestone I - Concept Approval</u>
                    c. <u>Milestone II - Full Scale Engineering</u>
                        <u>Development</u>
                    d. <u>Milestone III - Full Rate Production or</u>
                        <u>Construction</u>
                    e. <u>Milestone IV - Major Upgrade or Modification</u>

(Subcluster)   2. <u>Acquisition Program Categories and Decision</u>
                        <u>Authorities.</u>

(Items)   a. <u>ACAT I</u>
                    b. <u>ACAT II</u>
                    c. <u>ACAT III</u>
                    d. <u>ACAT IV</u>

(Subcluster)   3. <u>DoD Component Acquisition Management</u>
                        <u>Organization.</u>

(Items)   a. <u>General</u>
                    b. <u>Service Acquisition Executive</u>
                    c. <u>Program Executive Officers</u>
                    d. <u>Program Managers</u>
                    e. <u>Military Department Logistics, Systems, and</u>
                        <u>Materiel Commands</u>
                    f. <u>Component Acquisition Board, Council, or</u>
                        <u>Committee and Milestone Review Process</u>

Revising to tell readers how separate pieces fit together.

The writers reviewed this earlier draft and decided to completely restructure it. They also decided the reader would find it very difficult to interrelate and also grasp the differences among the various items of information within the subclusters. So, they developed a new strategy for presenting this information to accomplish this goal.

WHY SHOULD YOU USE FORMATS OTHER THAN TEXT?

Matrix Tables To: CATEGORIZE AND COMPARE
Text requires readers to sort information into several categories in order to compare and identify similarities and differences.

Example 3-10. First draft (page 3-19) vs. Matrix Table used in revised version (pages 3-20 & 3-21).

The text in the first draft helps the reader identify each program category by subtitling and placing each in a separate subparagraph. However, the three types of information presented for each category represent the information that tells the reader how each category differs from each of the others. It's hard work to extract these comparisons from the text.

Note how the matrix format used in the revision helps the reader easily identify what each program category is, how it is managed, and what distinguishes one category from another.

2. <u>Acquisition Program Categories and Decision Authorities</u>. DoD
acquisition programs, both major and non-major, are to be classified into
one of four acquisition categories (ACATs). These categories determine the
level of review, decision authority, and applicable procedures.

   . a. <u>ACAT I</u>. This category includes all major defense acquisition
programs as defined in D.3., above.

      (1) ACAT I programs requiring a DAB review will be identified
by the USD(A) and designated ACAT ID. Decision authority for these programs
is the USD(A).

      (2) ACAT I programs delegated by the USD(A) to a DoD
~~Component Head for decision will be designated ACAT IC. Decision authority
for these programs may be delegated no~~ further than the Service Acquisition
Executive (SAE).

      (3) A listing of ACAT IC and ID programs is to be published
quarterly by the USD(A).

   b. <u>ACAT II</u>. This category includes acquisition programs which are
expected to require an eventual total expenditure for research, development,
test and evaluation of more than $150 million (based on Fiscal Year 1990
constant dollars) or an eventual total expenditure for procurement of more
than $750 million (based on Fiscal Year 1990 constant dollars) and which do
not meet the requirements specified for ACAT I. DoD Component Heads and
SAEs may designate other programs to be ACAT II based on significant
warfighting capability or other special interest. Decision authority for
these programs shall be the cognizant DoD Component Head or SAE.

   c. <u>ACAT III</u>. This category does not have dollar thresholds.
Programs are assigned to this category based on their overall importance,
degree of risk involved, and need for higher management visibility and
decisionmaking as determined by each DoD Component Head or SAE. The level
of decision authority for this category may include Program Executive
Officers and the commanders of the Military Department logistics, systems,
and materiel commands as determined by the Component Head or SAE.

   d. <u>ACAT IV</u>. This category includes those acquisition programs not
otherwise designated as ACATs I, II or III. The level of decision authority
for programs in this category shall be at the lowest level deemed
practicable by the Component Head or SAE.

3. <u>DoD Component Acquisition Management Organization</u>. DoD Component
Heads shall establish clear, abbreviated lines of authority within their
components for managing acquisition programs.

   a. <u>General</u>. In each of the Military Departments, management
responsibilities for ACAT I programs shall flow through an experienced full-
time Service Acquisition Executive (SAE), through full-time Program
Executive Officers (PEOs), to individual Program Managers (PMs). Program
direction and guidance for such programs, to include all matters relating to
cost, schedule, technical performance, operational effectiveness and
suitability, and funding, shall only be issued by and flow through the SAE-

ACQUISITION CATEGORIES AND MILESTONE DECISION AUTHORITY

(ALL DOLLAR VALUES ARE IN FISCAL YEAR 1990 CONSTANT DOLLARS)

ACAT	SELECTION CRITERIA	DESIGNATION AUTHORITY	MILESTONE DECISION AUTHORITY
I	• Programs not classified as highly sensitive by the Secretary of Defense that have: •• Estimated research, development, test & evaluation costs in excess of $300 million; or, •• Estimated procurement costs in excess of $1.5 billion, or, •• Been designated by the Under Secretary of Defense (Acquisition) as an acquisition category I program based on criticality, complexity, Presidential, or Congressional interest • Acquisition category I programs are further designated by the Under Secretary of Defense (Acquisition) as either requiring decision by the: •• Under Secretary - I D •• Component Head - I C	• Under Secretary of Defense (Acquisition)	• I D - Under Secretary of Defense (Acquisition) • I C - Military Department of Defense Agency head
II	• Programs not meeting the criteria for category I that have: •• Estimated research, development, test, and evaluation costs from between $100 to $300 million, or •• Estimated procurement costs ranging from $450 million to $1.5 billion; or •• Been designated category II by the Military Department or Defense Agency head based on criticality complexity, or other such factors	• Military Department or Defense Agency head or, if delegated, the Service or Agency Acquisition Executive	• Military Department or Defense Agency head or, if delegated, the Service or Agency Acquisition Executive
III	• Programs not meeting the criteria for category I and II that have: •• Estimated research, development, test, and evaluation costs of less than $100 million; or •• Estimated procurement costs of less than $450 million, or •• Been designated category III by the Service or Agency Acquisition Executive based on criticality and complexity	• Service or Agency Acquisition Executive	• Program Executive Officers • Commanders of the Military Departments' systems, logistics or materiel commands
IV	• Acquisition category III programs for which the decision authority should be delegated to a level below that required for category III	• Service or Agency Acquisition Executive	• Lowest level deemed appropriate by the Service or Agency Acquisition Executive

(2) The underlying thrust of the objectives, decision criteria, and minimum required accomplishments for a milestone decision highlighted herein must be accommodated when tailoring a program. This is particularly important in accelerated acquisition strategies.

4. ACQUISITION CATEGORIES

Congress categorizes defense acquisition programs by research, development, test, and evaluation and procurement dollar thresholds expressed in constant year dollars. These categories establish specific acquisition program strategy, execution, and reporting requirements. The two most common definitions are "major defense acquisition programs" and "major systems."

a. A "major defense acquisition program" is a program that does not have a highly sensitive classification status (as determined by the Secretary of Defense) and that:

   (1) Is designated a major program by the Under Secretary of Defense (Acquisition); or

   (2) Is estimated by the Under Secretary of Defense (Acquisition) to require total expenditure of more than $300 million for research, development, test, and evaluation; or an eventual total expenditure for procurement of more than $1.5 billion. Both values are in Fiscal Year 1990 dollars. (10 United States Code, Section 2430. The Secretary of Defense has delegated the authority to designate major programs to the Under Secretary of Defense (Acquisition))

c. A "major system" is a system which is estimated to require total expenditure of more than $100 million or research, development, test, and evaluation; or an eventual total expenditure for procurement of more than $450 million. Both values are in Fiscal Year 1990 dollars. (10 United States Code, Section 2302(5))

d. All defense acquisition programs are placed into one of four categories. These categories establish the designated milestone decision authority. The first two categories are based on the criteria defined in law.

   (1) Acquisition Category I programs are "major defense acquisition programs."

   (2) Acquisition Catgeory I and II programs are "major programs."

d. The additional distinction of Category III and IV programs allows for decentralized execution and decisionmaking. It permits Service Acquisition Executives and Program Executive Officer's to focus their attention on critical, high value programs.

c. The four categories are defined in the chart on the facing chart.

WHY SHOULD YOU USE FORMATS OTHER THAN TEXT?

Flow Charts For: PHASES OF A PROCESS
   Text requires readers to recognize a process that has a sequential series of phases, each with its own characteristics.

Example 3-11.   First draft (pages 3-24 & 3-25) vs. modified Flow Charts used in revised versions (pages 3-26 through 3-29).

The example of a first draft and its revision, shown on the next two pages, illustrates the use of two important strategies in displaying information. Note at the top of the revised version they provide a map of the entire process with the highlighted phase presented below the map. This enables readers to keep track of where they have been and where they are going in their reading.

Again, notice how much easier it is to obtain information from the matrix table as opposed to the text in the earlier version.

PART V

SECTION B

FOCUS OF MILESTONE DECISION POINT REVIEWS

PROPONENT: DIR, ACQUISITION POLICY AND PROGRAM INTEGRATION

Reference: (a) DoD 5000.1-M, "Acquisition Documentation and Reporting
                  Procedures," February __, 1990

This section highlights the primary purpose of each DAB Milestone decision point review. Specific documentation and reporting requirements for each Milestone are identified in reference (a).

1.   Milestone 0.   The purpose of Milestone 0 is to review an identified operational deficiency or opportunity to perform an assigned mission more effectively; and to decide whether or not to proceed with study efforts designed to explore proposed alternative concepts for redressing the deficiency or exploiting the opportunity that potentially could result in the initiation of a major defense acquisition program. Hence, a favorable Milestone 0 decision does not constitute the establishment of a program. Instead, it merely reflects approval and direction to undertake Concept Exploration/Definition studies to evaluate potential alternative approaches to redressing an identified shortfall or exploiting an opportunity. In this regard, all deficiencies and opportunities identified by DoD Components that could result in the initiation of an ACAT I program will be submitted in a Mission Needs Statement (MNS), accompanied by a Systems Threat Assessment Report (STAR), through the JROC to the USD(A) for review at a Milestone 0 DAB.

2.   Milestone I.   The primary purpose of a Milestone I review is to determine if the results of the study effort undertaken during the Concept Exploration/Definition Phase warrant establishing a new major defense acquisition program; and for those programs receiving favorable consideration, to establish a Concept Baseline containing broad program cost, schedule, and operational effectiveness and suitability goals and thresholds, which allow the PM maximum flexibility to develop innovative and cost-effective solutions.

      a.   Primary considerations at this decision include: 1) program alternative tradeoffs; 2) performance/cost and schedule trade-offs, including the need for a new development program versus buying or adapting existing U.S. or Allied military or commercial systems; 3) appropriateness of the acquisition strategy; 4) prototyping of the system or selected system components; 5) affordability and life-cycle costs; 6) potential common-use solutions; 7) cooperative opportunities.

b.   As a result of this decision review, the USD(A) will designate the program as either an ACAT ID or IC program.

3.   <u>Milestone II</u>. The primary purpose of a Milestone II DAB review is to determine if the program should proceed into the FSED Phase and, as appropriate, low rate initial production (LRIP) of selected components and quantities; and, for those programs receiving favorable consideration, to establish ar approved Development Baseline containing more specific cost, schedule, and operational effectiveness and suitability goals and thresholds.

a.   The quantities proposed for LRIP will be limited to those required to verify production capability and to provide test resources needed to conduct interoperability, live fire, or operational testing.

b.   Primary considerations at this decision are: 1) affordability in terms of program cost versus the military value of the new or improved system and its operational suitability and effectiveness; 2) program risk versus benefit of added military capability; 3) planning for the transition from development to production, which will include producibility assessments (hardware/software/data bases) and, where appropriate, surge and mobilization capacity; 4) potential common-use solutions; 5) results from prototyping and demonstration/validation; 6) manpower, personnel, training and safety assessments; 7) acquisition strategy appropriate to program cost and risk assessments; 8) plans for integrated logistics support; 9) affordability and life-cycle costs; and 10) associated command, control, communications, intelligence and security requirements, including communications security.

4.   <u>Milestone III</u>. The primary purpose of a Milestone III DAB review is to determine if a program should proceed into full rate production or construction; and, for those programs receiving favorable consideration, to establish a Production Baseline.

a.   If the magnitude of the program is sufficiently large and/or the time between the beginning of low-rate initial production and full rate production is significantly long, there may be a need for a Program Review or a Milestone IIIA before the Milestone III decision point.

b.   Primary considerations at this decision are: 1) results of completed operational test and evaluation; 2) threat validation; 3) production or construction cost assessments; 4) affordability and life-cycle costs; 5) the production and deployment schedule; 6) reliability, maintainability and plans for integrated logistics support; 7) producibility and, where appropriate, realistic industry surge and mobilization capacity; 8) multiyear procurement; 9) manpower, personnel, training and safety requirements; 10) cost-effectiveness or plans for competition or dual sourcing; and 11) associated command, control, intelligence, and security requirements, including communications security.

5.   <u>Milestone IV</u>. The purpose of Milestone IV is to review and determine the need to pursue proposals for major upgrades or modifications of systems that are still in production; and, for those proposals receiving favorable consideration, to establish a Development or Production Baseline, as appropriate. Primary considerations at this decision point essentially parallel those for Milestone I.

ACQUISITION MILESTONES & PHASES

	PHASE I	PHASE II	PHASE III	PHASE IV	PHASE V
DETERMINATION OF MISSION NEED	CONCEPT EXPLORATION & DEFINITION	DEMONSTRATION & VALIDATION	ENGINEERING & MANUFACTURING DEVELOPMENT	PRODUCTION & DEPLOYMENT	OPERATIONS & SUPPORT

MILESTONE 0	MILESTONE I	MILESTONE II	MILESTONE III	MILESTONE IV
CONCEPT STUDIES APPROVAL	CONCEPT DEMONSTRATION APPROVAL	DEVELOPMENT APPROVAL	PRODUCTION APPROVAL	MAJOR MODIFICATION APPROVAL

AS REQUIRED

MILESTONE 0 - CONCEPT STUDIES APPROVAL

OBJECTIVES & DECISION CRITERIA	ACQUISITION DECISION MEMORANDUM
• The objectives of this milestone are to: •• Determine if an identified mission need warrants the initiation of study efforts of alternative concepts; and •• Identify the minimum set of alternative concepts to be studied to satisfy an identified need	• The Acquisition Decision Memorandum for this decision point should: •• Define the minimum set of alternative concepts to be examined •• Identify the lead organization or organizations for the study efforts •• Establish any special information or analyses that must be presented at Milestone I
• Studies of alternative concepts and entry into Phase I may not be approved until the designated decision authority determines that the mission need: •• Is based on a validated threat •• Cannot be satisfied by a non-materiel solution •• May require a materiel solution given the overall importance of the operational deficiency or opportunity identified •• Is sufficiently important to warrant the funding of study efforts to explore and define alternative concepts to satisfying the need	•• Identify the dollar amount and source of funding for the study efforts to be conducted

b. **Milestone 0, Concept Studies Approval**

The basic objectives, decision criteria, and contents of the acquisition decision memorandum for Milestone 0 are highlighted in the chart on the facing page.

(1) Milestone 0, Concept Studies Approval, marks the initial interface between the requirements generation and acquisition management systems.

(2) The acquisition program decision authority decides what action should be taken on an identified mission need for which a nonmaterial solution is not feasible at this decision point.

(3) A favorable decision to proceed at this point does not establish a new development program. Instead, it merely reflects approval to proceed with studies of alternative concepts that could satisfy an identified need.

ACQUISITION MILESTONES & PHASES

	PHASE I	PHASE II	PHASE III	PHASE IV	PHASE V
DETERMINATION OF MISSION NEED	CONCEPT EXPLORATION & DEFINITION	DEMONSTRATION & VALIDATION	ENGINEERING & MANUFACTURING DEVELOPMENT	PRODUCTION & DEPLOYMENT	OPERATIONS & SUPPORT

MILESTONE 0	MILESTONE I	MILESTONE II	MILESTONE III	MILESTONE IV
CONCEPT STUDIES APPROVAL	CONCEPT DEMONSTRATION APPROVAL	DEVELOPMENT APPROVAL	PRODUCTION APPROVAL	MAJOR MODIFICATION APPROVAL

AS REQUIRED

PHASE I - CONCEPT EXPLORATION & DEFINITION

OBJECTIVES	MINIMUM REQUIRED ACCOMPLISHMENTS
• The objectives of Phase I are to: ●● Explore various materiel alternatives to satisfying the documented mission need; ●● Define the most promising system concept(s); ●● Develop supporting analyses/information to include identifying high risk areas and risk management approaches to support the Milestone I decision; and ●● Develop a proposed acquisition strategy and initial broad program objectives for cost, schedule, and performance and acceptable performance variances for the preferred system concept(s)	• An updated threat assessment, when appropriate • Assessments of the major pros and cons of each alternative given the updated threat assessment • A proposed acquisition strategy for the preferred alternative(s) that addresses: ●● Key operational capability characteristics and constraints ●● Cost, schedule, and performance trade-off opportunities ●● Proposed broad objectives for cost, schedule, and performance and acceptable performance variances ●● The risks associated with the concept(s) and risk management approach • Proposed exit criteria that must be accomplished during Phase II, Demonstration and Validation

NOTE: The acquisition strategy for a major defense acquisition program must include competitive prototyping unless the Secretary of Defense submits to the Congress a written notification that a competitive prototyping strategy is not practicable (10 United States Code, Section 2365).

c. **Phase I, Concept Exploration and Definition**

The basic objectives and minimum required accomplishments for Phase
I are highlighted on the facing page.

(1) Competitive, parallel, short term studies by the Government
and/or industry will normally be used during this phase.

(2) Early life-cycle cost estimates of the competing alternatives
made during this phase will be analyzed relative to the value
of the expected increases in operational capability.

(a) This analysis -- generally referred to as a cost and
operational effectiveness analysis -- must facilitate
comparisons of the alternative concepts.

(b) Trade-offs will be made among cost, schedule, and
performance as a result of this analysis.

(3) The most promising system concept(s) will be defined in terms
of an overall acquisition strategy and broad objectives for
cost, schedule and performance. Performance objectives will
include acceptable variances (upper and lower bounds) as
described in Section B of this Part.

(a) The acquisition strategy should address the need and
rationale for concurrency and competitive prototyping.

(b) Critical operational and support characteristics and
constraints (e.g. survivability, transportability, and
security), projected surge and mobilization requirements,
and proposed broad performance objectives will be defined
interactively with user representatives.

> NOTE: ■ "Performance" as used throughout this
> Instruction includes both operational and
> supportability parameters.
>
> ■ Definition of "mandatory" performance
> requirements and "required" delivery dates must
> be avoided until Milestone II. Premature,
> mandatory requirements are counter to
> evolutionary requirements definition and
> inhibit cost, schedule, and performance
> tradeoffs.

(c) Initial projections of potential major foreign
dependencies will also be developed during this phase.

(d) Plans for the next phase will address identified risk
areas and provide for the demonstration and validation of
the technologies and processes required to achieve
critical characteristics and constraints.

WHY SHOULD YOU USE FORMATS OTHER THAN TEXT?

Decision Trees For: BRANCHING IF-THEN CONDITIONS
     Text requires readers to recognize each decision point, criteria for making the decision, which branch to take, where they have been, where they are, and where they are going.

Example 3-12. Text (pages 3-32 & 3-32) presents criteria for making decisions vs. a Decision Tree (page 3-35).

Example 3-13. Text (page 3-36) uses a Decision Tree to present the if-then and branching details.

EXAMPLE 3-12

"c. School assignment. Enlisted personnel selected for training at service schools will be assigned or attached as follows:
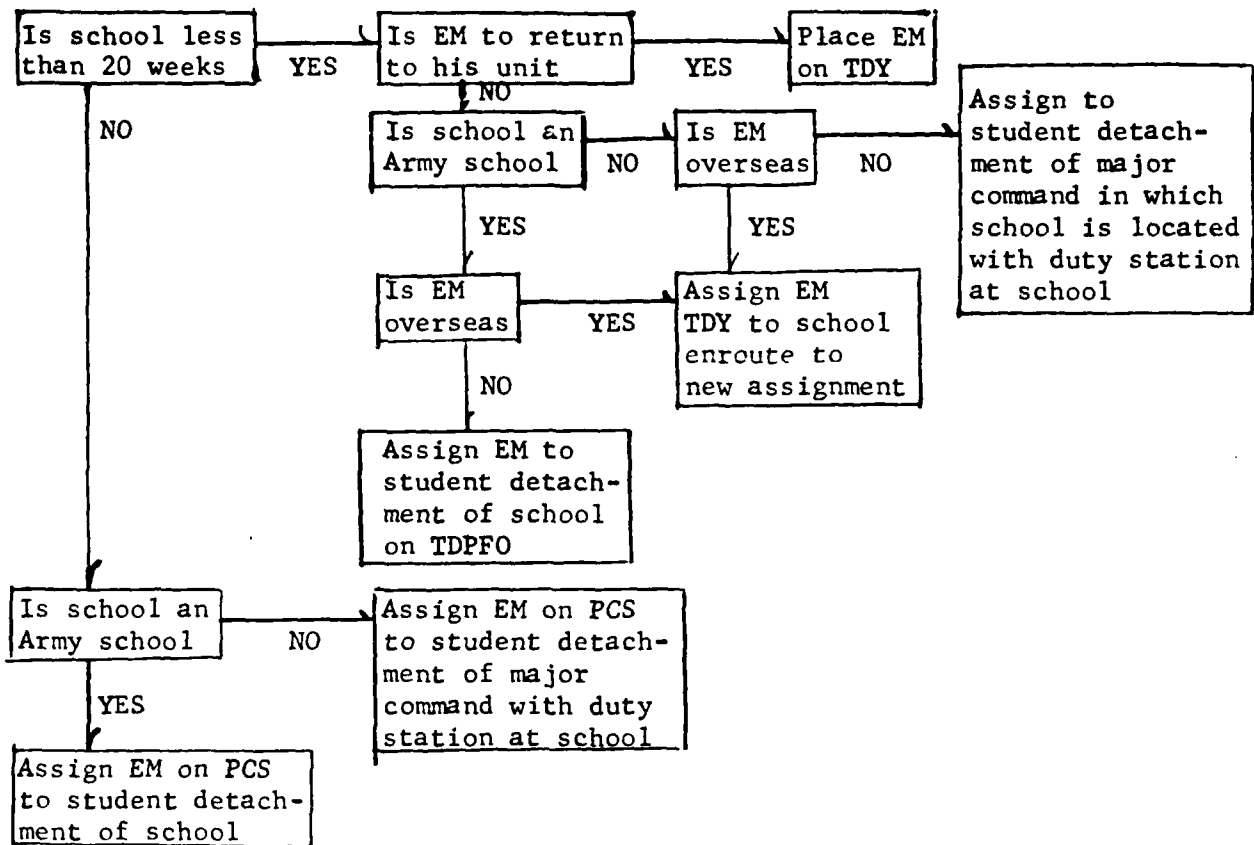
(1) Navy and Air Force personnel. In accordance with separate Air Force and Navy directives, Air Force and Navy enlisted personnel, when selected for training at Army service schools, will be attached to schools on temporary duty until returned to their respective Departments upon completion of the course. School commandants are authorized to drop from attachment and report to Director of Military Personnel, United States Air Force or Chief of Naval Operations, Military Personnel Office, United States Navy, personnel who are attached to Army schools contrary to these instructions.

(2) Army personnel.

(a) Army personnel stationed in CONUS ordered to an Army, Navy, or Air Force service school for a course of instruction of less than 20 weeks will be placed on temporary duty at school, provided they are to be returned to their assigned organization whether they do or do not complete school course. They will be returned to their assigned organization upon completion of the course, or earlier if they are relieved prior to completion of the course.

(b) Army personnel stationed in CONUS, ordered to an Army, Navy, or Air Force service school for a course of instruction of less than 20 weeks, and who are not to be returned to their parent installation will be assigned on Temporary Duty Pending Further Orders (TDPFO), as appropriate. EDCSA to be established in orders will be the same as the reporting date to school. Personnel will be assigned to a student detachment as follows:

1. Army service school. Personnel reporting to an Army service school will be assigned direct to student detachment of school. Upon completion of course, or when relieved prior to completion of a course, personnel will be reassigned in accordance with instructions received from the Chief of Personnel Operations, Department of the Army.

2. Navy or Air Force service schools. Personnel reporting to a Navy or Air Force service school will be assigned to student detachment of headquarters of major command in which the school is located, with station at the school. Personnel attending a Navy or Air Force service school will be reported by appropriate major headquarters upon completion of course, or when relieved prior to completion of a course, to Chief of Personnel Operations, for reassignment under AR 614-205. These individuals will also be reassigned as prescribed by Chief of Personnel Operations (exempt report para 39a, AR 335-15).

EXAMPLE 3-12 (cont)

(c) Army personnel stationed in an oversea command ordered to an Army, Navy, or Air Force service school for a course of instruction of less than 20 weeks will be assigned direct to the new gaining CONUS unit with TDY en route to school designated. EDCSA will be established as prescribed by paragraph 20, AR 330-12.

(d) Army personnel ordered to an Army service school for course of instruction of 20 weeks or longer will be relieved from their unit of assignment and will be assigned on a permanent change of station direct to the student detachment of Army service school. EDCSA to be established in orders for personnel stationed within CONUS will be same date as reporting date to the school. EDCSA to be established in orders for all personnel stationed overseas will be computed as prescribed by paragraph 20, AR 330-12. Upon completion of course, or if relieved prior to completion of course, these individuals will be reassigned in accordance with instructions from the Chief of Personnel Operations.

(e) Army personnel ordered to a Navy or an Air Force service school for a course of instruction of 20 weeks or longer will be relieved from their unit of assignment. They will be assigned, on a permanent change of station status, direct to the student detachment of headquarters of major command in which school is located, with station at the school. EDCSA to be established in orders for personnel stationed in CONUS will be the same date as reporting date of individual to the school. EDCSA to be established in orders for all personnel stationed overseas will be computed as prescribed by paragraph 20, AR 330-12. Upon completion of course, or if relieved prior to completion of course, appropriate major headquarters will report individuals to Chief of Personnel Operations, for reassignment under AR 614-205. Individuals will be reassigned as prescribed by Chief of Personnel Operations (exempt report, para 39a, AR 355-15).

(f) Army personnel ordered to a course conducted at a civilian school will be reassigned to, or placed on temporary duty with, student detachment of headquarters of the major command in which the school is located, with station at the school. The major commander will be responsible for accomplishing actions directed in paragraph 4-4c when personnel are relieved from, or complete, the course of instructions. EDCSA to be established in orders for personnel stationed overseas will be computed as prescribed by paragraph 20, AR 330-12.

    1. Reassignment will be on a permanent change of station when course is 20 weeks or longer.

    2. When course is of less than 20 weeks' duration, individual will be reassigned on a temporary duty basis, or on temporary duty pending further orders (TDPFO), when indicated, except that Army personnel stationed overseas will be assigned in accordance with (c) above."

EXAMPLE 3-12 (cont.)

Enlisted personnel selected for training at service schools will be assigned or attached as follows:

```
┌─────────────┐         ┌─────────────┐         ┌──────────┐
│Is school less│  YES   │Is EM to return│  YES  │Place EM  │
│than 20 weeks │────────│to his unit   │────────│on TDY    │
└─────────────┘         └─────────────┘         └──────────┘
     │                       │ NO
     NO                      ▼
     │                 ┌──────────┐  NO  ┌─────────┐  NO   ┌──────────────┐
     │                 │Is school an│─────│Is EM    │───────│Assign to     │
     │                 │Army school │     │overseas │       │student detach-│
     │                 └──────────┘       └─────────┘       │ment of major │
     │                      │ YES              │ YES        │command in which│
     │                      ▼                  ▼            │school is located│
     │                 ┌──────────┐  YES  ┌──────────┐      │with duty station│
     │                 │Is EM     │───────│Assign EM │      │at school     │
     │                 │overseas  │       │TDY to school│   └──────────────┘
     │                 └──────────┘       │enroute to │
     │                      │ NO          │new assignment│
     │                      ▼             └──────────┘
     │                 ┌──────────┐
     │                 │Assign EM to│
     │                 │student detach-│
     │                 │ment of school│
     │                 │on TDPFO   │
     │                 └──────────┘
     ▼
┌─────────────┐  NO   ┌──────────────┐
│Is school an │───────│Assign EM on PCS│
│Army school  │       │to student detach-│
└─────────────┘       │ment of major │
     │ YES            │command with duty│
     ▼                │station at school│
┌─────────────┐       └──────────────┘
│Assign EM on PCS│
│to student detach-│
│ment of school│
└─────────────┘
```

RULES FOR EDCSA: (1) EDCSA will be the same as the school reporting date for EM in CONUS.

(2) See para 20, AR 330-12 for EDCSA of EM overseas.

Navy and Air Force personnel will be attached on TDY. Orders will be issued by Department of Navy or Air Force.

FIG. 2

Adams, Elmer E. The Use of Job Aids as a Method of Instruction, Fort Benjamin Harrison, Indiana: U.S. Army Adjutant General School, 1968.

EXAMPLE 3-13

b. Item accounting (as opposed to dollar value inventory accounting) will be maintained at the intermediate level for all items on which the ICP has determined that daily summary transaction item reporting is required. DoD Components may assign this requirement to selected consumer level inventories.

4. Item accounting will be maintained for all reparable assets held at the intermediate level. Items may be placed in rotatable pools or simply positioned near expected consumers, provided line item accounting is accomplished at the intermediate level. DoD Components may assign this requirement to selected consumer level inventories.

5. To reduce OST and minimize the layering of inventory at the intermediate level in support of specific consumer requirements (replenishment or end-use), requisitions will be processed directly to the supporting intermediate echelon. Normally, no more than one intermediate supply activity will be included in the requisitioning channel for a consumer.

6. All secondary items held at the intermediate level of inventory will be identified with a Reason for Stockage Category (RSC). This will identify the stockage rules applicable to the items in each category.

a. Item records will record the appropriate RSC for each item held. The RSC will be reviewed at least annually with the review occurring prior to the development of the annual budget submission. DoD Components may reflect all applicable RSCs for the line item or resolve conflicts in accordance with the guidance contained in enclosure 2 for internal application. However, the reporting of inventories or requirements by RSC will use the guidance contained in enclosure 2 to provide standardization.

b. The following categories, as defined in enclosure 1, will apply:

(1) Stocked Demand (SD);

(2) Stocked Insurance (SI);

(3) Stocked Numeric (SN);

(4) Stocked Provisioning (SP);

(5) Stocked Prepositioned War Reserve Materiel Stock (SW);

(6) Not Stocked (NS);

(7) Other (NK);

EXAMPLE 3-13 (cont.)

CATEGORIZATION CONFLICT GUIDANCE
(CRITERIA FOR ASSIGNING REASON FOR STOCKAGE CATEGORIES)
(RSC)
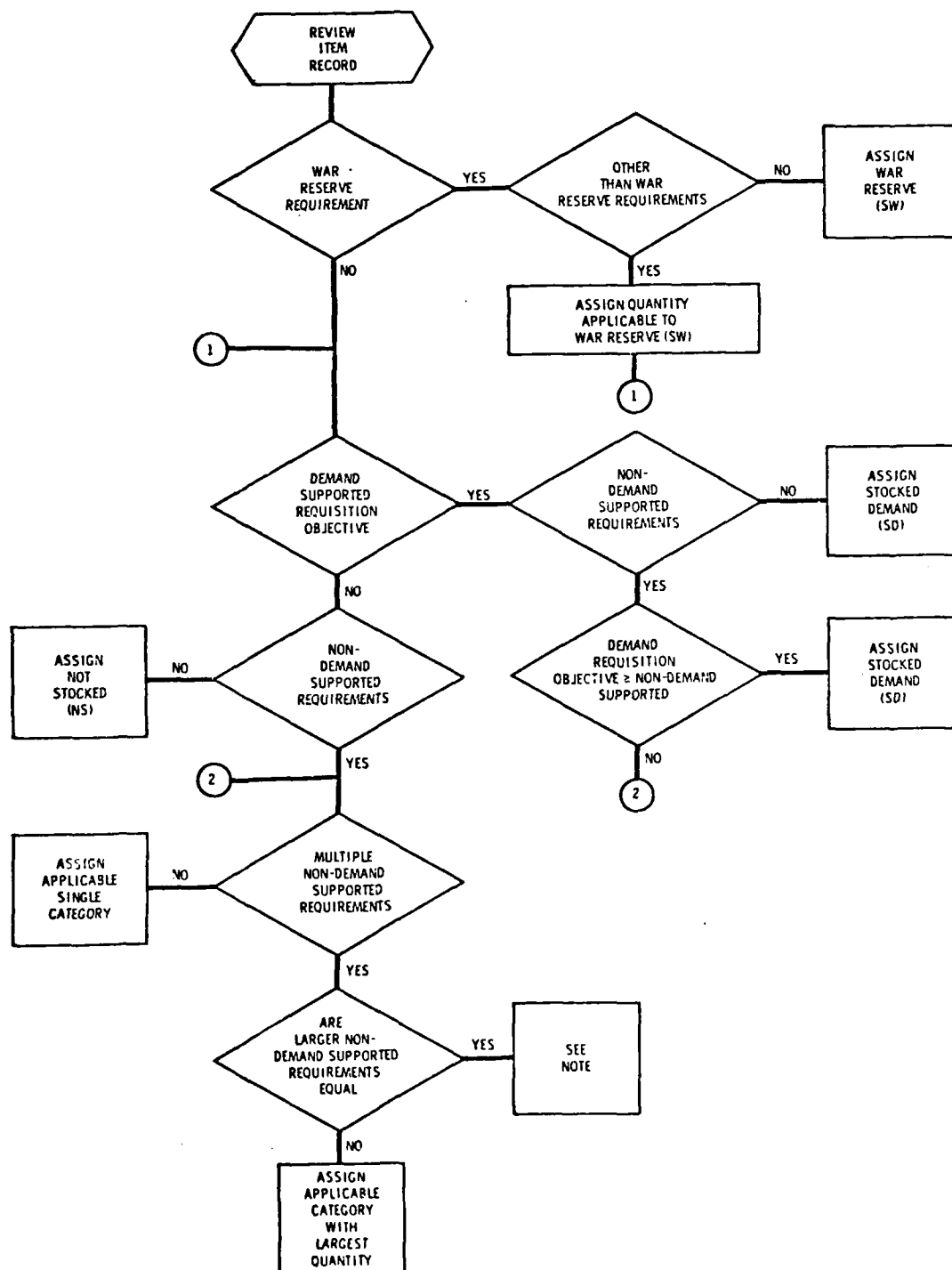
NOTE   USE THE FOLLOWING PRIORITY SEQUENCE WHEN TWO OR MORE NON-DEMAND SUPPORTED REQUIREMENTS ARE EQUAL :

1 - STOCKED PROVISIONING   (SP)
2 - STOCKED INSURANCE   (SI)
3 - STOCKED NUMERIC   (SN)
4 - OTHER   (NK)

WHY SHOULD YOU USE FORMATS OTHER THAN TEXT?

Pictorical Illustrations To: REDUCE DETAIL BURDEN IN TEXT
Text requires readers to be able to visually identify objects, visualize sequences of actions, or spatial relationships.

Example 3-14.   Text (page 3-40) uses an illustration (page 3-41) to present spatial relationships and dimensions.

EXAMPLE 3-14

b. <u>Accident Potential and Clear Zones (See Enclosure 3)</u>

(1) The area immediately beyond the end of a runway is the "Clear Zone," an area which possesses a high potential for accidents, and has traditionally been acquired by the Government in fee and kept clear of obstuctions to flight.

(2) Accident Potential Zone I (APZ I) is the area beyond the clear zone which possesses a significant potential for accidents.

(3) Accident Potential Zone II (APZ II) is an area beyond APZ I having a measurable potential for accidents.

(4) Modifications to APZs I and II will be considered If:

(a) The runway is infrequently used.

(b) The prevailing wind conditions are such that a large percentage (i.e., over 80 percent) of the operations are in one direction.

(c) Most aircraft do not overfly the APZs as defined herein during normal flight operations (modifications may be made to alter these zones and adjust them to conform to the line of flight).

(d) Local accident history indicates consideration of different area.

(e) Other unusual conditions exist.

(5) The takeoff safety zone for VFR rotary-wing facilities will be used for the clear zone; the remainder of the approach-departure zone will be used as APZ I.

(6) Land use compatibility with clear zones and APZs is shown in enclosure 4.

EXAMPLE 3-14 (cont.)

Accident Potential Zone Guidelines

Class A Runway

All Dimensions in Feet
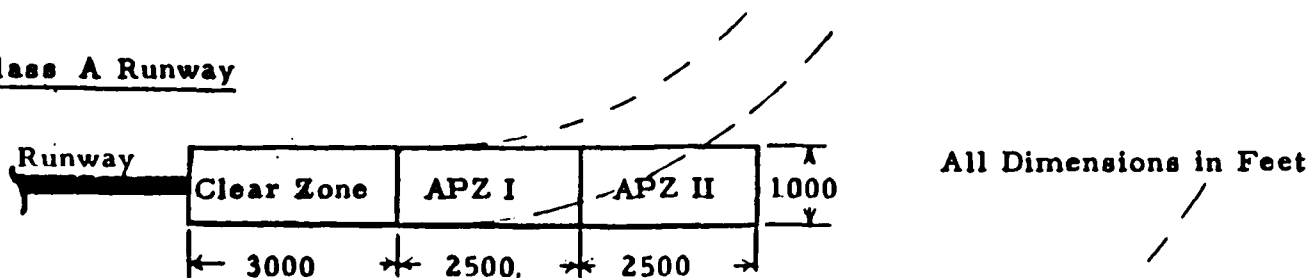
Class B Runway
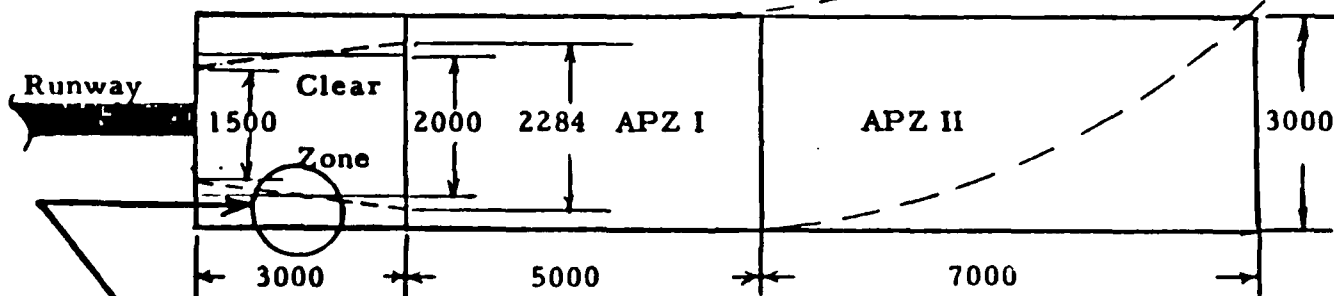
Width of clear zone may be based on individual service analysis of highest accident potential area for specific runway use and varied based on acquisition constraints. 3000 foot wide clear zone is desirable for new construction.

SUMMARY

TWO KEY FEATURES OF AN EFFECTIVE DOCUMENT

First Key Feature: Content organized to address the readers.

• Techniques to use in organizing and structuring content to address the readers' needs.

Readers' Matrix: Provides you with a way of thinking about who will be the readers/users of your document. What will each type of reader know about, not know about, and what will they be expected to do with the information?

Readers' Maps: Provides you with a way of monitoring:
o how you are organizing and structuring the content to address the readers.
o how you are using headings and subheadings to identify:
- the types and levels of management addressed
- the subject of each of the various policies or procedures
- the different conditions (if present) which identify the respective policies that apply.

Second Key Feature: Special formats that improve readers' access to the information.

• Guidelines to use in identifying when special formats will help.

Matrix Tables To: CATEGORIZE AND COMPARE.
Text requires readers to sort information into several categories in order to compare and identify similarities and differences.

Flow Charts For: PHASES OF A PROCESS.
Text requires readers to recognize a process that has a sequential series of phases, each with its own characteristics.

Decision Trees For: BRANCHING IF-THEN CONDITIONS.
Text requires readers to recognize each decision point, criteria for making the decision, which branch to take, where they have been, where they are, and where they are going.

**Pictorical Illustrations To: REDUCE DETAIL BURDEN IN
TEXT.** Text requires readers to be able to visually identify objects,
visualize sequences of actions, or spatial relationships.

EXERCISE: REVISE A DRAFT

This exercise asks you to apply the techniques I have shown you earlier for **focusing on the readers** and for **developing readers' maps** from your draft. Recursive use of these techniques as you draft your document will help you identify missing parts, breakdowns in the logical structure, or a draft that is talking to the writer rather than the readers.

For this exercise we will focus on only one section of a document (paragraph F -1, Physical Inventory Control) shown on the next page. However, knowing the context from which this section is extracted will help you. So turn to the next page and you will see a copy of the entire document (Department of Defense Instruction 4140.35).

First, take about 10 minutes to review the document, and particularly paragraph F-1, to identify the readers who paragraph F-1 should address. Then lets discuss who you think these readers are or should be and how clearly you think it addresses these readers.

Discussion Questions:

Does par. B-1 in the full document identify the readers?

Is par. E (Responsibilities) addressing users or describing a multi-tiered structure for managing the Physical Inventory Control program?

Which groups of readers is par. F-1 aimed at? Heads of which DoD components? All in par. B-1?

Now construct a readers' map of paragraph F-1. Do this by writing down key words or short phases for each subject, action and object you find in each subparagraph. I'll call time in 20 minutes so we can discuss the problems you had and the points you identified. After this discussion I will ask you to use the points you have identified to organize and structure a new readers' map.

Discussion Questions:

How does par. F-1 (Physical Inventory Control) fit into the structure of par. F? Are paragraphs F-2 through 6 separate programs or are they subcomponents of the Physical Inventory Control program?

The title of par. F is Procedures. To be consistent with this structure what should be the subject of par. F-1-a and where should it be moved to?

What do par. F-1-b and - c refer to? If retained, where should they go?

What is the subject of par. F-1-d? How many inventories are cited? How do they differ? How can this paragraph be structured so the reader can quickly identify each type of inventory? The items to be inventoried? Frequency?

Now construct a revised readers' map for paragraph F-1. When you have finished we will compare and discuss your revised maps.

F. **PROCEDURES** The following procedures are related to wholesale supply system materiel. Procedures for supply system materiel below the wholesale level will be provided in subsequent revisions of this Instruction.

1. **Physical Inventory Control**

    a. A Physical Inventory Control Program shall be established for DoD wholesale supply system materiel in accordance with the procedures prescribed in DoD 4140.22-M (reference (d)).

    b. Potential and actual discrepancies that are disclosed through location surveys and location reconciliation shall be resolved.

    c. Provisions shall be established to assure that assets are protected against waste, loss, negligence, unauthorized use, misappropriation, and compromise in the case of classified materiel.

    d. DoD Components shall conduct inventories on all items, both principal and secondary, for which they are the owner and have established wholesale accountable records, and upon request, for assets for which they are the custodian on behalf of another DoD Component as follows:

    (1) A scheduled random statistical sample inventory of the total population of items in storage shall be conducted annually to determine the overall inventory record accuracy, i.e., before research and corrective actions, of each DoD Inventory Control Point (ICP). The purpose of this inventory is to assess the inventory process rather than the magnitude of the quantity and the dollar value of inventory adjustments. The results obtained from the scheduled random statistical sample inventory will enable management to measure improvements to the inventory process in a uniform manner. The scheduled random statistical sample inventory will be conducted and results reported in accordance with DoD 4140.22-M (reference (d)).

    (2) A complete inventory shall be conducted semiannually for non-nuclear missiles and rockets (Security Risk Code 1) in accordance with DoD 5100.76-M (reference (e)), and at least once each fiscal year for all other controlled inventory items and any other items as defined in DoD 4140.22-M (reference (d)) or categories designated by the DoD Components.

    (3) An unscheduled inventory (spot or special) shall be conducted for all controlled items experiencing total or partial materiel release denials or upon discovery of an inventory variance greater than $800 in value which resulted from the denial, and location audit type I or II errors in accordance with DoD 4140.22-M (reference (d)) or upon request by the Item Manager or the Accountable Officer.

    (4) All others items shall be subject to inventory through a physical inventory selection and prioritization system. Physical inventory resources shall be directed toward those items for which maximum returns in readiness will be derived from the resources applied. Selection and priori tization systems shall insure that all items selected for inventory are inventoried within a designated time period and shall consider such characteristics as weapon system significance, recorded inventory quantity and dollar value; demand quantity, value, and frequency; proximity of anticipated replenishment action; forecasted replenishment quantity and value; and period of time since last inventory. Items to be selected for inventory in this manner will be considered only after completion of the inventories required in paragraph F.1.d.(1), (2) and (3) above.

Department of Defense
INSTRUCTION

ASD(P&L)

SUBJECT: Physical Inventory Control for DoD Supply System Materiel

References: (a) DoD Instruction 4140.35, "Physical Inventory Control for DoD Wholesale Supply System Materiel," May 16, 1984 (hereby canceled)
   (b) DoD Instruction 4140.18, "Inventory Management Reports of Materiel Assets," November 9, 1981
   (c) DoD 4140.25-M, "Procedures for the Management of Petroleum Products," December 1978, authorized by DoD Directive 4140.25, May 15, 1980
   (d) DoD 4140.22-M, "Military Standard Transaction Reporting and Accounting Procedures (MILSTRAP)," January 1977, authorized by DoD Directive 4000.25, November 18, 1983
   (e) DoD 5100.76-M, "Physical Security of Sensitive Conventional Arms, Ammunition and Explosives," February 1983, authorized by DoD Directive 5100.76, February 10, 1981
   (f) through (i), see enclosure 1

A. REISSUANCE AND PURPOSE

This Instruction reissues reference (a) to update policy, responsibilities, and procedures for wholesale physical inventory control; to establish statistical inventory accuracy goals; and to expand the scope of the policy to include supply system materiel below the wholesale level.

B. APPLICABILITY AND SCOPE

1. This Instruction applies to the Office of the Secretary of Defense (OSD), the Military Departments, and the Defense Agencies (hereafter referred to collectively as "DoD Components") and specifically to the DoD Joint Physical Inventory Working Group (JPIWG) whose charter is at enclosure 2.

2. Its provisions apply to management of DoD supply system assets of principal and secondary items in storage at continental United States and overseas storage activities, selected distribution system storage sites, and contractor-owned or -operated facilities when assets are maintained on the DoD accountable records.

3. Its provisions do not apply to complete ships, aircraft, ballistic missiles, nuclear weapons, space vehicles, and materiel at contractor-owned or -operated facilities when assets are not maintained on the DoD accountable record; industrial plant equipment (IPE) reportable to the Defense Industrial Plant Equipment Center (DIPEC); nor to National Security Agency/Central Security Service assets in accordance with DoD Instruction 4140.18 (reference (b)). Its provisions also do not apply to bulk petroleum, which is governed by DoD 4140.25-M (reference (c)).

C. DEFINITIONS

Terms used in this Instruction are defined in DoD 4140.22-M (reference (d)).

D. POLICY

It is DoD policy that a Physical Inventory Control Program shall be established for DoD supply system materiel and maintained by each DoD Component to ensure force readiness. These programs shall ensure the integrity of accountable records maintained in support of any supply management function which is dependent upon asset balance data, e.g. physical security, requirements determination, financial accounting, requisition processing. Provisions shall be made for physical inventories, location audits, quality control, research, performance goals and management reporting. Resources shall be directed toward achieving force readiness goals such that maximum returns will be derived from the resources applied.

E. RESPONSIBILITIES

1. The Assistant Secretary of Defense (Production and Logistics)(ASD (P&L)) shall prescribe policy and provide oversight of Component execution of physical inventory control of DoD supply system materiel.

2. The DoD Inspector General (DODIG) shall:

a. Perform periodic evaluation of the Physical Inventory Control Program to include the quality of performance, the adequacy of the processes used in identifying and correcting recurring error causes, and the validity of reconciliation of variances and reversals of adjustments.

b. Provide audit findings to the DoD Components that disclose weaknesses in the Physical Inventory Control Program.

3. Heads of DoD Components shall:

a. Establish and maintain a viable physical inventory control program in compliance with this Instruction, and ensure that processing of inventory results to accounting records is in accordance with DoD 7220.9-M (reference (h)).

b. Provide adequate management priority and resources for the execution of physical inventory control program functions.

c. Ensure that materiel accountability and inventory accuracy are mandatory elements in military and civilian personnel performance for individuals directly responsible for the caring, safekeeping, managing and reporting of DoD supply system materiel.

d. Establish physical inventory control as an element to be addressed in annual Internal Management Control assessments required by DoD Directive 5010.38 (reference (i)).

e. Ensure that adequate training is provided to supply system personnel who perform functions affecting physical inventory control and that training courses are updated to reflect current DoD policies, procedures and performance goals.

f. Forward an original and one copy of Component Inventory Control Effectiveness (ICE) Reports to the ASD(P&L) ATTN: Chairman, JPIWG, in accordance with DoD 4140.22-M (reference (d)).

g. Provide representatives to serve on the JPIWG.

h. Conduct functional reviews of the physical inventory control program to ensure compliance with DoD and Component policy and procedures.

4. The Defense Logistics Standard Systems Office (DLSSO) shall:

a. Establish a program administrator to serve as the DoD focal point for the DoD Physical Inventory Control Program in accordance with DoD Directive 4000.25 (reference (i)).

b. Ensure compatibility of physical inventory control procedures with all other DoD standard systems.

c. Assist in resolving problems, violations, and deviations that arise during system operations and are reported to the program administrator.

d. Ensure uniform implementation of DoD policy and procedures by Components.

5. The DoD Physical Inventory Control Program Administrator shall:

a. Develop and publish procedural guidelines for physical inventory control of DoD supply system materiel, coordinate proposed MILSTRAP changes in accordance with DoD Directive 4000.25 (reference (i)), and reconcile problems among the DoD Components.

b. Review and analyze ICE Reports and provide analyses to the ASD(P&L).

c. Serve as the Chair for the JPIWG.

6. The DoD Joint Physical Inventory Working Group (JPIWG) shall develop and recommend policy and devise program enhancements for the physical inventory control of DoD supply system materiel in accordance with the charter shown in enclosure (2).

F. PROCEDURES The following procedures are related to wholesale supply system materiel. Procedures for supply system materiel below the wholesale level will be provided in subsequent revisions of this Instruction.

1. **Physical Inventory Control**

a. A Physical Inventory Control Program shall be established for DoD wholesale supply system materiel in accordance with the procedures prescribed in DoD 4140.22-M (reference (d)).

b. Potential and actual discrepancies that are disclosed through location surveys and location reconciliation shall be resolved.

c. Provisions shall be established to assure that assets are protected against waste, loss, negligence, unauthorized use, misappropriation, and compromise in the case of classified materiel.

d. DoD Components shall conduct inventories on all items, both principal and secondary, for which they are the owner and have established wholesale accountable records, and upon request, for assets for which they are the custodian on behalf of another DoD Component as follows:

(1) A scheduled random statistical sample inventory of the total population of items in storage shall be conducted annually to determine the overall inventory record accuracy, i.e., before research and corrective actions, of each DoD Inventory Control Point (ICP). The purpose of this inventory is to assess the inventory process rather than the magnitude of the quantity and the dollar value of inventory adjustments. The results obtained from the scheduled random statistical sample inventory will enable management to measure improvements to the inventory process in a uniform manner. The scheduled random statistical sample inventory will be conducted and results reported in accordance with DoD 4140.22-M (reference (d)).

(2) A complete inventory shall be conducted semiannually for non-nuclear missiles and rockets (Security Risk Code 1) in accordance with DoD 5100.76-M (reference (e)), and at least once each fiscal year for all other controlled inventory items and any other items as defined in DoD 4140.22-M (reference (d)) or categories designated by the DoD Components.

(3) An unscheduled inventory (spot or special) shall be conducted for all controlled items experiencing total or partial materiel release denials or upon discovery of an inventory variance greater than $800 in value which resulted from the denial, and location audit type I or II errors in accordance with DoD 4140.22-M (reference (d)) or upon request by the Item Manager or the Accountable Officer.

(4) All others items shall be subject to inventory through a physical inventory selection and prioritization system. Physical inventory resources shall be directed toward those items for which maximum returns in readiness will be derived from the resources applied. Selection and prioritization systems shall insure that all items selected for inventory are inventoried within a designated time period and shall consider such characteristics as weapon system significance, recorded inventory quantity and dollar value; demand quantity, value, and frequency; proximity of anticipated replenishment action; forecasted replenishment quantity and value; and period of time since last inventory. Items to be selected for inventory in this manner will be considered only after completion of the inventories required in paragraph F.1.d.(1), (2) and (3) above.

2. <u>Location Audit Program</u>. Each DoD Component shall initiate and implement a location audit program that will consist of both location survey and location reconciliation.

    a. A complete location survey of all locations at each storage activity shall be conducted at least once each fiscal year.

    b. Inter-Service location reconciliations shall be conducted semi-annually in accordance with the schedule provided in DoD 4140.22-M (reference (d)) each fiscal year. Intra-Service location reconciliation shall be conducted at least once each fiscal year.

3. <u>Quality Control Program</u>. DoD Components shall establish a quality control program to assist management in identifying those human, procedural, or system errors that adversely affect the wholesale asset accuracy in accordance with DoD Directive 5010.38 (reference (f). Quality control checks shall be conducted in accordance with DoD 4140.22-M (reference (d)).

4. <u>Research of Physical Inventory Variances and Adjustments</u>. DoD Components shall ensure that inventory record variances and adjustments are researched in accordance with DoD criteria prescribed in DoD 4140.22-M (reference (d)). Inventory variances and adjustments which involve known or suspected negligence, abuse, or theft of material will be researched in accordance with DoD 7200.10-M (reference (g)). Unresolved physical inventory adjustments (gains or losses) for controlled inventory items will be referred to security officials of the storage activity from which the adjustment occurred to determine whether there is culpability. Each DoD Component shall compile, analyze, and report the results of all causative research in accordance with DoD 4140.22-M (reference (d)).

5. <u>Accuracy and Performance Goals</u>. The procedure for measurement and reporting will be accomplished in accordance with DoD 4140.22-M (reference (d)). and DoD 5160.65-M (reference (j)). The acceptable DoD accuracy and performance goals are as follows:

    a. Materiel Denial Goal: Not greater than 1 percent

    b. Receipt Processing Performance Goal: 90 percent stored and posted within MILSTRAP time standards

    c. Location Audit Program:

        (1) Location Survey Accuracy: 97 percent - General Supplies
                                        98 percent - Ammunition

        (2) Location Reconciliation Accuracy: 97 percent - General Supplies
                                                 98 percent - Ammunition

    d. Inventory Record Accuracy Goal: 95 percent - Ammunition.
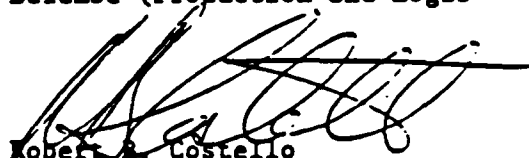
6. Additional procedures implementing this Instruction are contained in DoD 4140.22-M (reference (d)).

1. A report of inventory control effectiveness for both general supplies and ammunition shall be prepared and submitted to Assistant Secretary of Defense (Production and Logistics) ASD(P&L) ATTN: Chairman, JPIWG, in accordance with DoD 4140.22-M (reference (d)).

2. This reporting requirement has been assigned Reports Control Symbol DD-P&L(Q)935.

H. EFFECTIVE DATE AND IMPLEMENTATION

This Instruction is effective immediately. Forward two copies of implementing documents to the Assistant Secretary of Defense (Production and Logistics) within 120 days.

Robert B. Costello
Assistant Secretary of Defense
(Production and Logistics)

Enclosures - 2
1. References
2. Charter

REFERENCES, continued

(f) DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987

(g) DoD 7200.10-M, "Department of Defense Accounting and Reporting of Government Property Lost, Damaged or Destroyed," May 1977, authorized by DoD Instruction 7200.10, May 16, 1977

(h) DoD 7220.9-M, "Department of Defense Accounting Manual," October 1983, authorized by DoD Instruction 7220.9, October 22, 1981

(i) DoD Directive 4000.25, "Administration of Defense Logistics Standard Systems," November 18, 1983

(j) DoD 5160.65-M, "Single Manager for Conventional Ammunition Implementing Joint Conventional Ammunition Policies and Procedures," January 1986, authorized by DoD Directive 5160.65, November 17, 1981

CHARTER FOR THE DoD JOINT PHYSICAL INVENTORY WORKING GROUP

A. PURPOSE

This Charter establishes the DoD Joint Physical Inventory Working Group (JPIWG) to develop, maintain and improve the program of physical inventory control for.DoD supply system materiel.

B. ORGANIZATION AND MEMBERSHIP

1. The JPIWG shall be chaired by the DoD Physical Inventory Control Program Administrator, Defense Logistics Standard Systems Office.

2. Each of the Military Services and the Defense Agencies maintaining supply system stock shall provide a representative with the necessary physical inventory functional and automatic data processing expertise. Each representative shall have a designated comptroller point of contact with accounting expertise to assist the JPIWG member in accounting matters.

3. The Assistant Secretary of Defense (Comptroller) shall provide one representative, preferably from the Directorate for Accounting Policy.

C. FUNCTIONS

The functions of the JPIWG are to:

1. Evaluate the physical inventory control program for *DoD* supply system materiel and recommend system enhancements as changes to DoD 4140.22-M (reference (d)).

2. Review and analyze Inventory Control Effectiveness (ICE) reports and provide such analyses and recommendations to the Assistant Secretary of Defense (Production and Logistics) ASD(P&L).

3. Resolve interservice problems through direct coordination among the JPIWG members.

4. Formulate solutions to problems presented to the JPIWG.

5. Recommend to the ASD(P&L) policy changes as necessary.

D. RESPONSIBILITIES

1. **The Chair** shall:

a. Ensure the accomplishment of JPIWG objectives and discharge of responsibilities.

b. Convene the JPIWG as required, but at least quarterly, to resolve problems.

c. Submit minutes of each JPIWG meeting to the ASD(P&L).

d. Submit policy recommendations to the ASD(P&L).

e. Maintain a current list of representatives to the JPIWG.

f. Present problems to the JPIWG for resolution.

2. **The Service and Agency members** shall:

a. Attend all JPIWG meetings or ensure alternate Service/Agency representation is provided.

b. Furnish the Chair a copy of items of interest for the JPIWG.

c. Respond to taskings emanating from JPIWG meetings.

d. Present the Service/Agency position and be authorized to negotiate and seek agreement with the JPIWG members to achieve the goals and objectives of the DoD Physical Inventory Control Program.

E. ADMINISTRATION

Sponsors of JPIWG members shall fund necessary travel and administrative costs associated with JPIWG functions.

TAB
5

WHAT ARE THE KEY FEATURES OF CLEAR WRITING?

STRUCTURING SENTENCES

LONG SENTENCES

PASSIVE CONSTRUCTION

SMOTHERED VERBS

NESTED CLAUSES

LONG SENTENCES

Short sentences are generally easier to read:

Primary fuel support for sea-based aircraft shall be a kerosene-type fuel, designated JP-5. Conventionally powered ships shall use a distillate-type fuel, designated F-76. Commercial equivalents may be used when approved by the Military Service.

Long sentences can be easy to read if the parts are in logical order:

The Military Services' operations and logistics planners shall coordinate with their respective Reserve components to ensure that weapon systems and equipment of the reserves conform to the policies of DOD Directive 1225.6 (reference (b)) and this Directive.

So, try to keep sentences short, but don't sacrifice logic for length.

LONG SENTENCES CAN BE AMBIGUOUS:

BEFORE (Long and confusing)

A DoD facility that generates 100 tons or more per day of residential, commercial and institutional solid waste after complying with waste reduction and source separation policies, shall establish and/or utilize resource recovery facilities to separate and recover materials or energy, or both, from solid waste.

AFTER (Shorter and clearer)

If, after complying with waste reduction and source separation policies, a Department of Defense facility still generates 100 tons or more of solid waste per day, then the facility shall use resource recovery facilities.

(note: it is easy to see what the "after" clause modifies)

LONG SENTENCES CAN BE WORDY:

To keep sentences short, get rid of unnecessary words.

BEFORE (Wordy)

The Department of Defense Parts Control Program shall be applied using the advisory engineering support services of Mobile Parts Control Advisory Groups.

AFTER (Concise)

The Department of Defense Parts Control Program shall use advisory engineering support from Mobile Parts Control Advisory Groups.

(note: are all the words in "advisory engineering support" needed?)

BEFORE (Wordy)

PURPOSE: This Instruction provides general management and documentation requirements for the survivability of systems designed and acquired to perform mission essential functions in a Nuclear, Biological, or Chemical contaminated environment.

AFTER (Concise)

PURPOSE: Ensure that mission-essential systems survive in a Nuclear, Biological, or Chemical contaminated environment.

(note: change from smothered to action verb)

EXERCISE: GETTING RID OF WORDINESS

REWRITE THE FOLLOWING 2 EXAMPLES MORE CONCISELY:

1. Describe the specific pollution and nature of the problem.

2. POLICY: It is the policy of the Department of Defense to establish and maintain safe, efficient, and environmentally sound integrated pest management programs to prevent or control pests that may adversely affect health or damage structures, material, or property.

SUGGESTED REVISIONS:

1. Describe the problem.

2. POLICY: Establish and maintain programs to prevent or control pests that may be harmful to health or property.

PASSIVE CONSTRUCTION

Prefer active sentences:

BEFORE

<u>Policy</u>

It is DoD policy that Nuclear, Biological and Chemical contamination survivability shall be included in the design and acquisition of mission-essential systems.

AFTER

<u>Policy</u>

The design and acquisition of mission-essential systems shall include Nuclear, Biological and Chemical contamination survivability.

(Note: noun string "NBC contamination survivability" could be untangled.)

BEFORE

A proper combination of cost-effective survivability techniques shall be applied. The following are to be considered:

AFTER

Apply a proper combination of cost effective survivability techniques. Consider the following:
            o r
techniques, for example:
                            ***

Use passive sentences to emphasize the object of the action:

Two thousand spare and repair parts were inventoried during March.

EXERCISE: PASSIVE CONSTRUCTIONS

Rewrite the following sentences, changing passives to actives whenever you believe the change is appropriate. You may keep the passive construction if you can explain why you consider it preferable. REMEMBER: PUT THE ACTOR UP FRONT.

1. After comments are received, the planning schedule dates will be revised by the <u>project manager</u>. *The project manager will revise the planning schedule after receiving comments.*

2. It is recommended by this office that the exchange of equipment not be implemented until the first year's supplies are received by Office Services.

3. A thorough analysis has been made of this proposal by personnel of the Office of the <u>Chief of Naval Manpower</u>. *The Office of the Chief of Naval Manpower has analyzed this proposal.*

4. When a loss of stamps is incurred by an employee, action should be taken by the Division Chief to effect integration and coordination of the account.

5. Enforcement of the regulation is accomplished by <u>the executive officer</u>. *The executive officer enforces the regulation*

6. The recommendation was made by us that the computation and crediting of interest be performed by the Finance Officer at the end of each fiscal year.

7. A search has been begun by every Federal agency for ways to improve its service to the public.

8. A semi-automated reporting and information system for aids to navigation has been developed by a working group.

9. It was suggested that the construction schedules be revised by the project manager.

10. Compilation of the finance data should be completed by managers no later than July 1st.

SMOTHERED VERBS

Use strong verbs.   Don't smother them into nouns:

accomplishment of	*Use*
replenishment action	*accomplish*
a determination of	*replenish*
an identification of	*determine*
restrictive of	*identify*
make a determination of	*restrict*
to permit summarization	*determine*
first in order of precedence	*summarize*
utilization of resources	*precede*
authorization by	*use*
extensive documentation	*authorize*
standardization	*document*
	standardize

SMOTHERED VERBS

BEFORE

This section should be divided into two distinct elements:

    (1) A determination of those land and water uses having a direct and significant impact upon coastal waters.

    (2) An identification of such uses which the State deems permissible.

AFTER

This section has two elements:

    (1) Determining land and water uses that have significant effects on coastal waters.

    (2) Identifying land and water uses that the State will permit.

(Note: this rewrite also changes a passive to active.)

BEFORE

Place emphasis on cost-effective survivability techniques.

AFTER

Emphasize cost-effective survivability techniques.

EXERCISE: SMOTHERED VERBS

Eliminate the smothered verbs in the following sentences.
Make any other editorial changes you believe will improve clarity.

1. He made the decision to have a talk with his secretary before she left.

   He decided to talk . . .

2. After making a study of the situation, the analyst made a report to the Division Chief.

3. He was recently given an award of $250 for instituting an improvement in purchasing practices in his office.

   . . . for improving . . .

4. To prevent accidents, they conducted an analysis of safety standards in the office and made recommendations concerning needed changes.

   . . . they analyzed safety standards in the office and recommended . . .

5. We may take into consideration the number of people attending and then make provisions for a meeting place.

6. Assessment of the situation should precede implementation of the program.

7. To effect a proper utilization of time, ensure that preparation of an agenda has been accomplished before the meeting.

8. The committee made an appraisal of the damage.

   appraised

9. Implementation of these guidelines should be accomplished immediately.

10. The candidate sought the discreditation and defeat of his opponent.

NESTED CLAUSES

Avoid nesting clauses. Keep the parts of each clause together by reordering the sentence or making separate sentences.

Simple Examples:

When part of a clause is widely separated from the rest of the clause, the sentence can be ambiguous:

You are welcome to visit the cemetery where famous Russian and Soviet composers, artists and writers are buried daily except Thursday. (from a sign in a Moscow hotel)

There will be a Moscow Exhibition of Arts by 15,000 Soviet Republic painters and sculptors that were executed over the past two years. (from the Soviet Weekly)

When clauses are nested inside of each other, the sentence is hard to read:

BEFORE: The chair that the cat that I feed scratched is ruined.

AFTER: The chair is ruined that was scratched by the cat that I feed.

OR: The cat that I feed scratched the chair. It's ruined.

(Note shift in emphasis.)

NESTED CLAUSES

DOD Example:

BEFORE

POLICY. It is DoD policy that the MIL-STD-188 interoperability and performance standards that are required for interoperability and compatibility of DoD telecommunications equipment and systems are mandatory for use of all inter- and intra-DoD Component systems and equipment.

(Not clear what subject goes with what verb.)

AFTER

POLICY. DOD requires MIL-STD-188 interoperability and performance standards for interoperability and compatibility of DoD telecommunications equipment and systems. These standards are also mandatory for use of all inter- and intra-DoD Component systems and equipment.

(Rewrite also eliminates passive.)

SUMMARY EXERCISE: WORDINESS, SMOTHERED VERBS

Rewrite for conciseness and strong verbs:

The following descriptions of Accident Potential Zones are guidelines only. Their strict application would result in increasing the safety of the general public but would not provide complete protection against the effects of aircraft accidents. Such a degree of protection is probably impossible to achieve. Local situations may differ significantly from the assumptions and data upon which these guidelines are based and require individual study. Where it is desirable to restrict the density of development of an area, it is not usually possible to state that one density is safe and another is not. Safety is a relative term and the objective should be the realization of the greatest degree of safety that can be reasonably be attained.

SUMMARY EXERCISE: WORDINESS, SMOTHERED VERBS

Suggested   Rewrite:

The following descriptions of Accident Potential Zones should be used as guidelines, not as exact requirements. Local conditions should dictate selecting Zones to achieve the goal of attaining the greatest degree of safety.

STRUCTURING PARAGRAPHS:

ORGANIZATION

RELATED SENTENCES

TOPIC SENTENCES

CONCISENESS

SIGNALING

MARKING TOPICS

- Parallel structure
- Underlining
- Run-in Headings

SEPARATING ITEMS in LISTS

USING SPECIAL GRAPHICS

ORGANIZATION

Organize paragraphs logically:

- Put related sentences together

- Use topic sentences for main points

  - Put them up front

  - Make them clear and brief

- Make paragraphs concise while retaining essential information

RELATED SENTENCES

BEFORE (Related sentences far apart - rule and exception)

The introduction of a new substituting item into a military supply system will be phased to insure the maximum practical and economical utilization of the obsolescent item and its repair parts. When such utilization has been accomplished, remaining stocks will be promptly declared excess and removed from the supply system. Exceptions to this phasing of new items may be made only upon certification of each case by proper authority to safeguard life, health, morale or military capability.

AFTER (Related sentences go together)

Continue to use obsolete items while new items are being phased in. Exceptions to this policy may be made only to safeguard life, health, morale, or military capability. When obsolete items are no longer practical or economical, declare remaining stocks excess and remove them from the supply system.

(Note: rule is immediately followed by exception.)

TOPIC SENTENCES

THEY REVEAL THE SUBJECT MATTER IN THE PARAGRAPH THAT FOLLOWS.

<u>Fuel is a critical combat resource</u>. To increase flexibility and logistics supportability, the Military Services shall design weapon systems and support equipment, and the Unified Commands shall develop operation plans (OPLANs), both to minimize the number of fuels required in joint and combined operations and to identify and maximize the use of locally available fuel.

As described in DoD Directive 4120.3 (reference (e)), <u>technological evaluation must be accommodated</u>. Specifications for fuels shall be periodically evaluated, updated, and coordinated by the designated Military Service to reflect the needs of military modernization and the capabilities of the world petroleum refining industry. The Military Services shall take action to eliminate differences between military and commercial specifications for similar fuels wherever possible.

CONCISENESS

BEFORE

The congressional committees concerned with the Department of Defense Appropriation Acts and the authorizing Acts related thereto and the Department of Defense have generally accepted the view that rigid adherence to the amounts justified for budget activities or for subsidiary items or programs may unduly jeopardize the effective accomplishment of planned programs in the most businesslike and economical manner, and that unforeseen requirements, changes in operating conditions, revisions in price estimates, wage rate adjustments, etc., require some diversion of funds from the specified purposes for which they were justified. Reprograming measures, developed in consultation with the committees, are both necessary and desirable, and will provide a firm basis for retention of congressional control over the utilization of Defense appropriations by assuring that the congressional intent is carried out, while at the same providing a timely device for achieving flexibility in the execution of Defense programs.

**NOTE: first sentence has 89 words
second sentence has 57 words**

AFTER

Completing defense programs effectively shall not be jeopardized by budget limits.   If unforeseen requirements arise, then relevant congressional committees, together with Department of Defense budget personnel, shall reprogram funds.

NOTE: The AFTER version is a suggestion. If essential information is missing, this version should be expanded but sentences kept concise.

CONCISENESS

BEFORE

Within 1 year from the respective dates of promulgation of the EPA Guidelines (references (b), (c), (d) and (e)), DoD Components shall make a final determination as to what actions shall be taken to comply with them and with the requirements of this Directive and submit to the ASD(I&L) a schedule of said actions. Where prescribed by the individual Guidelines, DoD Components shall submit a report to the ASD (I&L) annually thereafter outlining the actions taken pursuant to the applicable Guidelines.

AFTER

Department of Defense Components shall submit to the Assistant Secretary of Defense (I&L) a schedule of compliance with the Environmental Protection Agency Guidelines within one year from their date of publication and, where specified, annually thereafter.

CONCISENESS

BEFORE

Accounting records

1. The accounting records at every level should be so designated as to permit summarization of financial transactions in a manner required to produce efficiently, accurately, and timely in one system of accounts the data required for preparation of prescribed budgets and financial reports and for such day-to-day data as may be required in financial administration. In addition, the records must be so designed and maintained as to facilitate audit.

2. While, in general, it is expected that accounting records will be maintained by each accountable operating unit, it is expected that suitable arrangements will be made, wherever feasible, for joint accounting service for two or more operating units at one geographical location and for similar service of any small separately located operating unit by another unit on a satellite basis.

3. Accounting records should be designed and maintained with the objective of eliminating, to the greatest practicable extent, any duplication of recorded data between different levels of management and within any operating agency or operating unit.

4. Accounting for cash receipts and disbursements at every level must be synchronized with monthly reporting thereon to the Treasury Department at the departmental level.

5.   Financial transactions recorded in the accounts of any level should be supported by appropriate documentary evidence maintained at that site as a part of the accounting records, for such periods as may be required.

AFTER

Accounting records

    1.   Design a single system of accounting records to support clear interpretation and easy audits.

    2.   Consider joint accounting service for multiple operating units either at one geographical location or where one unit serves another on a satellite basis.

    3.   Avoid duplication of account records within different levels of management or within any operating agency or unit.

    4.   Synchronize accounting of cash receipts and disbursements with monthly reporting to the Treasury Department at the departmental level.

    5.   Retain documentation of financial transactions as part of accounting records.

CONCISENESS

BEFORE

POLICY

It is DoD policy to require mandatory application of the DoD PCP at the outset of full-scale development (FSD) and throughout FSD, production, and modification. The PCP should also be considered during advanced development and may be made mandatory before completion of advanced development (e.g. during final hardware demonstration) if this can be expected to yield appreciable cost savings, such as those that would result by avoiding the need for redesign to replace unacceptable parts.

AFTER

POLICY

The Department of Defense Parts Control Program is mandatory.

> NOTE: Is this revision too concise? Is any important information missing from the AFTER version? If so, expand the AFTER version to include essential information.

CONCISENESS

BEFORE

The <u>Heads of DoD Components</u> shall:

    a.   Comply with this Directive, so that:

        (1) Developers of the MIL-STD-188 series ensure that each standard is not only essential but of uniformly high quality, clear and concise as to application suitable for use in acquisition packages and, to the maximum extent possible, compatible with existing or proposed national and international (both Government and non-Government) telecommunications standards.

        (2) Users of these standards cite in their procurement specifications only those standards essential to the proper functioning of the device or system over its projected lifetime.

AFTER

Heads of Department of Defense Components shall ensure quality control.

<div align="center">

Too concise?

</div>

CONCISENESS

BEFORE

Emphasis shall be placed on recognizing the system's contribution to the success of a much larger wartime function. Such functions often require a combination of different major systems and other elements to operate together to ensure function or mission completion. The program manager shall attempt to balance the survivability of the system under development with all systems that must function to accomplish the mission.

AFTER

The program manager shall incorporate the system into the larger wartime mission.

Too concise?

SIGNALING

Mark paragraphs to signal information to the reader:

- Mark paragraph topics so the reader can quickly spot what is relevant. Marking may include:

    - Parallel Structure

    - Underlining

    - Run-in Headings

- Graphically separate lists of items so that they are easy to read.

- Use special graphics (boxes, italics, or indentation) to set apart information you want the reader to find quickly (such as warnings and exceptions) or to skip over if not needed (such as definitions).

SIGNALING PARAGRAPH TOPICS by PARALLEL STRUCTURE and UNDERLINING

Conventional turbine-powered aircraft shall be capable of. . .

Combat and combat support vehicles and equipment shall be capable of. . .

Conventionally-powered vessels shall be capable of . . .

Wholesale and retail storage and distribution facilities and equipment must be designed and maintained with the capability to. . .

RESPONSIBILITIES

1. The <u>Assistant Secretary of Defense for Production and Logistics (ASD (P&L)),</u> or designee shall:

    a. Prescribe. . .

    b. Update. . .

    c. Monitor. . .

2. The <u>Secretaries of the Military Departments,</u> or designees, shall:

    a. Prescribe. . .

    b. Ensure. . .

    c. Review. . .

    d. Ensure. . .

SIGNALING: RUN-IN HEADINGS and UNDERLINING

BEFORE (Each paragraph applies to a different condition, but the conditions are hidden.)

A DoD facility that generates 100 tons or more per day of residential, commercial and institutional solid waste after complying with waste reduction and source separation policies, shall establish and/or utilize resource recovery facilities to separate and recover materials or energy, or both, from solid waste.

DoD facilities located within a Standard Metropolitan Statistical Area (SMSA) are required to participate with other DoD Components and Federal facilities in the establishment and/or utilization of a single resource recovery facility if: (1) any one Federal facility generate 50 tons or more of residential, commercial, and institutional solid waste per day after complying with waste reduction and source separation policies; and (2) the combined total of this solid waste for all Federal facilities within the SMSA is 100 tons per day. The Federal Agency having over a Federal Facility that the largest quantity of residential, commercial and institutional solid waste in the SMSA will be designated the lead agency in the planning, programing and budgeting for the resource recovery facility in accordance with EPA Guidelines (reference (b)).

SIGNALING: RUN-IN HEADINGS and UNDERLINING

AFTER (The condition each paragraph applies to is marked by an underlined heading.)

<u>Facilities located outside of standard metropolitan statistical area boundaries</u>. A facility that has complied with waste reduction and source separation policies, but still generates 100 tons or more of solid waste per day, must establish or use civilian resource recovery facilities to separate and recover materials, energy or both from the solid waste.

<u>Facilities located within a standard metropolitan statistical area</u>. Department of Defense facilities located within a Standard Metropolitan Area must join with other Federal facilities in the Area to establish or use a single resource recovery facility if:

1. after complying with waste reduction and source separation policies, any Federal facility still generates 50 tons or more of solid waste per day; and,

2. the total of solid waste for all Federal facilities within the Standard Metropolitan Area is 100 or more tons per day.

The Federal agency with jurisdiction over the Federal facility that produces the most solid waste in the Area will be the lead agency in planning, programing and budgeting for the resource recovery facility (reference b).

NOTE: This example also shows how items in a list (criteria 1 and 2) are <u>graphically separated</u> for easier reading.

SIGNALING

PRECEDENCE

The provisions of this Directive have precedence over all DoD Component acquisition related issuances, except when statutory requirements override.

> NOTE: Issuances include all directives, instructions, regulations, policy memoranda, and other documents issued by DoD Components.

↖ Good signaling

PRECEDENCE

The provisions of this Directive have precedence over all DoD Component acquisition related issuances, except when statutory requirements override.

> NOTE: Issuances include all directives, instructions, regulations, policy memoranda, and other documents issued by DoD Components.

↖ Better signaling

ALTERNATIVES TO TEXT

TABLES

DECISION TREES or FLOW CHARTS

LISTS

TIMELINES

*FORMATS OTHER THAN TEXT CAN HELP READERS TO SEE
RELATIONSHIPS AND FIND INFORMATION QUICKLY.*

TABLES: Use to help readers see relationships between categories and decision criteria.

BEFORE

MINOR CONSTRUCTION AUTHORITY: Urgently required projects, which involve the acquisition, new construction (except family quarters), addition, expansion, extension, alteration, conversion, replacement, or installation of permanent or temporary facilities will be accomplished under the authority of 10 U.S.C. 2674 when the funded cost of the project does not exceed $400,000. For other than family housing projects, the military construction appropriation will be used when the funded cost of the project is greater than $75,000. When the funded cost of a project to other than family housing facilities is $75,000 or less, the project may be financed from the applicable operation and maintenance-type appropriation, or the applicable military construction appropriation, as appropriate. Projects accomplished under the authority of 20 U.S.C. 2674 pertinent to family housing facilities will be accomplished in accordance with DoD Directive 7150.4 and DoD Instruction 5100.37.

AFTER

MINOR CONSTRUCTION AUTHORITY for projects under 10 U.S.C. 2674:

1. Family housing projects will follow Department of Defense Directive 7150.4 and Instruction 5100.37.

2. Non-family housing projects will be funded as follows:

Cost	Source of Appropriation
≤$75,000	operation and maintenance or military construction
>$75,000-$400,000	military construction

TABLES

BEFORE

Where previous studies have used CNR or NEF, for matters of policy, noise planning and decisionmaking, areas quieter than Ldn 65 shall be considered approximately equivalent to the previously used CNR Zone 1 and to areas quieter than NEF 30. The area between Ldn 65 and Ldn 75 shall be considered approximately equivalent to the previously used CNR Zone 2 and to the area between NEF 30 and 40. The area of higher than Ldn 75 shall be considered approximately equivalent to the previously CNR Zone 3 and to noise higher than NEF 40. The procedures shall remain in effect only until sufficient data to compute LDN values can be obtained.

AFTER

The following are equivalent noise level indicators:

Ldn		CNR		NEF
<65	=	Zone 1	=	30
65 to 75	=	Zone 2	=	30 to 40
>75	=	Zone 3	=	>40

TABLES and DECISION TREES

BEFORE

In the case of its minor construction program, a military department must establish approval and authority for individual projects as follows:

(a) The specific approval of the Secretary of Defense must be obtained for each project estimated to cost in excess of $200,000, except for Reserve Forces and National Guard construction, such approval must be obtained for each project estimated to cost in excess of $10,000.

(b) The specific approval of the Secretary of a military department must be obtained for each project estimated to cost in excess of $75,000, except for Reserve Forces and National Guard construction such approval must be obtained for each project estimated to cost in excess of $10,000.

(c) No such project may be started unless apportioned funds are reserved in an amount sufficient to finance it to completion.

> This text assigns different authorities to different levels of programs. A better prose rewrite can state the relationships. A table can help show the relationships. A decision tree can walk you through the relationships.

AFTER: TEXT

(1)

Approval and Authority for individual projects in minor
construction programs of military departments is as follows:

(a) The Secretary of Defense must approve projects
estimated at more than $200,000.

(b) The Secretary of the appropriate military department
must approve projects estimated at more than $75,000.

(c) Reserve and National Guard projects estimated at more
than $10,000 must be approved by both the Secretary of
Defense and the Secretary of the appropriate military
department.

Projects cannot be started unless apportioned funds are sufficient for
completion.

or: TABLE _____

(2)

Approval and Authority for Individual Projects in Minor
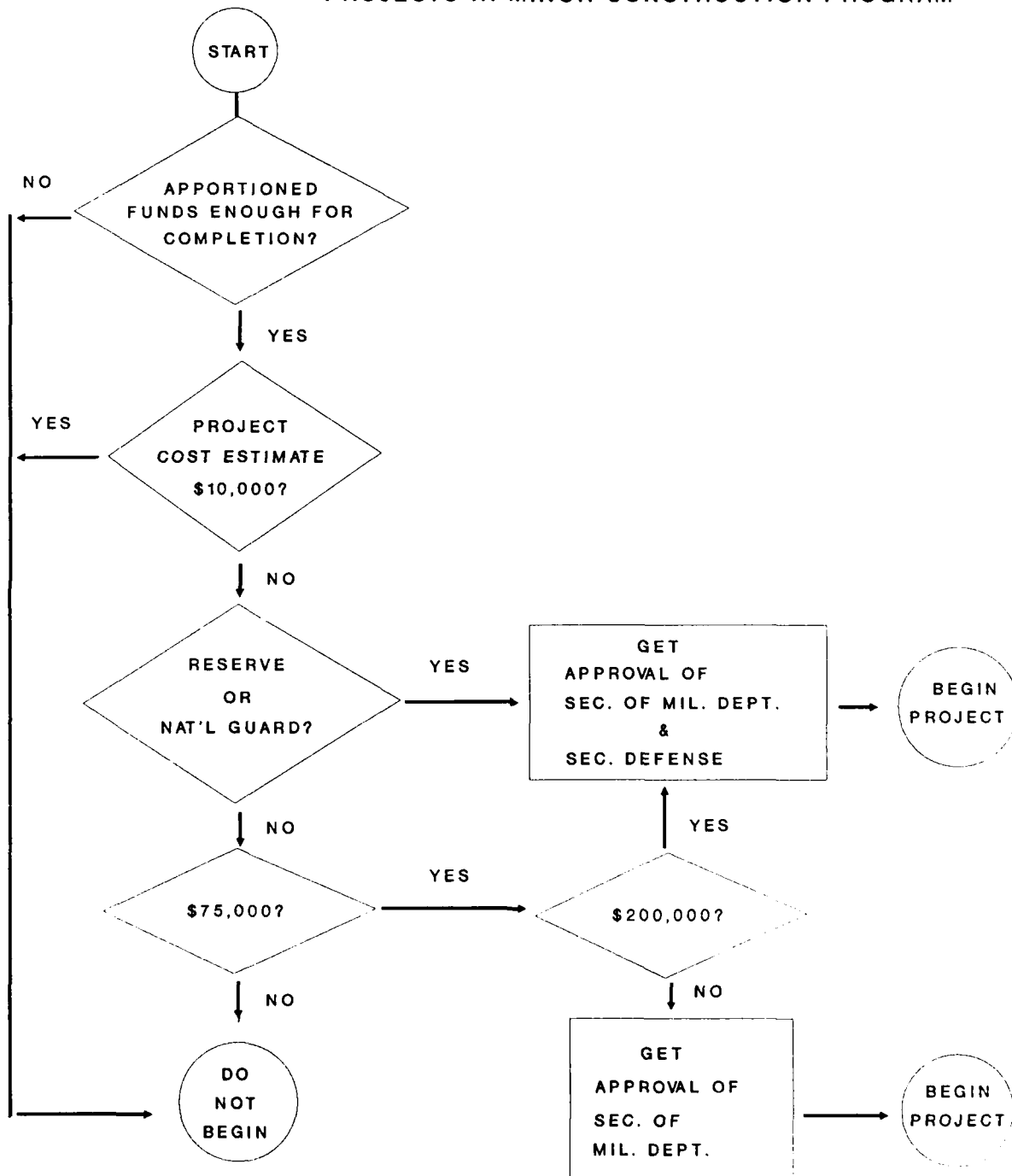Construction Program

	$200,000+ Project	$75,000+ Project	$10,000+ Reserve Forces or National Guard Project
Secretary of Defense	X		X
Secretary of appropriate military department		X	X

Projects cannot be started unless apportioned funds are sufficient for
completion.

(3)
AFTER: DECISION TREE OR FLOWCHART

APPROVAL AND AUTHORITY FOR INDIVIDUAL PROJECTS IN MINOR CONSTRUCTION PROGRAM

START

NO ← APPORTIONED FUNDS ENOUGH FOR COMPLETION?

YES

YES ← PROJECT COST ESTIMATE $10,000?

NO

RESERVE OR NAT'L GUARD? — YES → GET APPROVAL OF SEC. OF MIL. DEPT. & SEC. DEFENSE → BEGIN PROJECT

NO

$75,000? — YES → $200,000? — YES ↑ (to GET APPROVAL OF SEC. OF MIL. DEPT. & SEC. DEFENSE)

NO

DO NOT BEGIN

$200,000? — NO → GET APPROVAL OF SEC. OF MIL. DEPT. → BEGIN PROJECT

Reduction of long passage containing several conditions to an easy-to-interpret format.

LISTS: Use to make separate items easy to see

BEFORE

The statutory language of Section 612 of Public Law 93-552 (reference (u)) has been interpreted to mean the proceeds from the sale of recyclable material recovered from solid wastes as encompassed within the provisions of the Directive.   Accordingly, the Secretary of each Military Department shall report to Congress anually concerning, as a minimum, the proceeds received from sales of the recovered materials, expenses incurred in this program, the number and costs of projects for environmental improvement and energy conservation, and any remaining proceeds transferred to the prescribed Budget Account 97-F 3860.5191.   A copy of this report shall be provided ASD(I&L) concurrently with its formal transmission to Congress.   For DoD management and control, the assigned Report Control Symbol is DD - I&L (A) 1436 for submission of the required reports to Congress.

AFTER

The Secretary of each Military Department shall report to congress (copy to Assistant Secretary of Defense (I&L)) annually concerning:

1. proceeds from waste sales
2. costs of waste programs
3. costs of environmental improvement and energy conservation
4. residual proceeds in Budget Account
     97F 3860.5191

LISTING AND SPACING TEXT: Use bullets or letters or numbers or . . .

BEFORE

APPLICABILITY AND SCOPE

1. The provisions of this Instruction apply to the Office of the Secretary of Defense, the Military Departments, and the Defense Agencies (hereafter referred to as "DoD Components").

2. Its provisions encompass (a) DoD-owned facilities including Government Owned-Contractor Operated (GO-CO) industrial plants, wherein DoD work is done exclusively, (b) facilities located on real property under the jurisdiction of the DoD, and (c) DoD facilities operating in foreign countries.
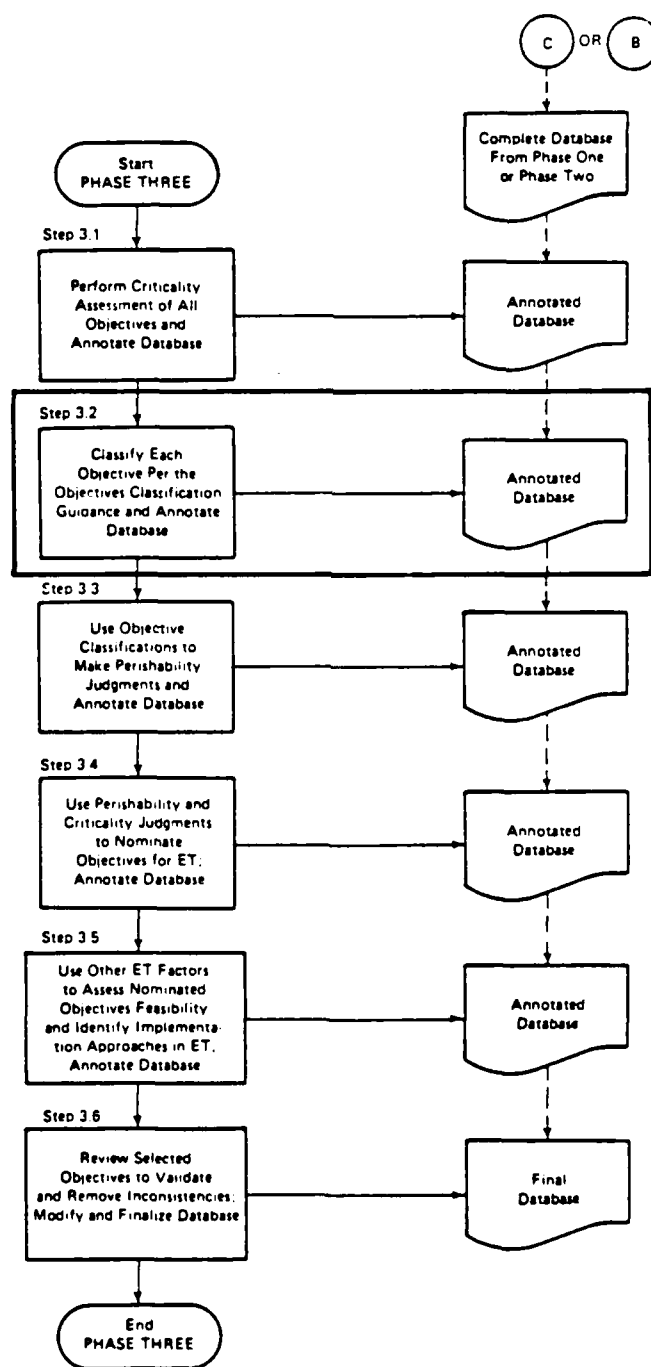
AFTER

APPLICABILITY

To:
- Office of the Secretary of Defense

- Military Departments

- Defense Agencies

- Department of Defense-owned facilities, both foreign and domestic

- Facilities located on real property under the jurisdiction of the Department of Defense

TIMELINES and Simple FLOWCHARTS: Use to show stages of a process. Highlight each stage as you refer to it in the text.

TAB
8

WORDS TO WATCH

LEGALESE

JARGON

REDUNDANT TERMS

NOUN STRINGS

LEGALESE

ABSTRACT, POMPOUS, RARE OR LEGAL TERMS

- hereafter -

- thereto -

- herein -

- cognizant-

- in consonance with -

- state deems permissible -

- should be examined to ascertain those restrictive of -

- from the respective dates of promulgation of -

- shall make a final determination as to what actions -

- shall submit a schedule of said actions -

- where prescribed by the individual guidelines -

- actions pursuant to -

JARGON

- nonrecurring efforts -

- leadtime away -

- ability to contract -

- reprogram appropriations -

- replenishment action -

- noncontroversial dollar adjustment -

- referenced to the extent -

- material release denials -

- organic acquisition specifications -

REDUNDANT TERMS

- period of time since -

- is known to be or has been designated -

- new substituting -

- administering and managing -

- methods and techniques -

- distinct and separate -

- free and clear -

- intents and purposes -

- null and void -

- undertakes and agrees -

- advance planning -

- basic fundamentals -

- continue to remain -

- exactly similar -

- joint cooperation -

- resultant effect -

- just exactly -

- both alike -

- mutually understood and agreed -

- of any sort and kind -

NOUN STRINGS

The value engineering program requirement clause...

Ensure that the nuclear effects survivability features...

DoD component acquisition related issuances...

How could you untangle these phrases?

Are these phrases so common (like "telephone book" or "gas station attendant") that to untangle them would confuse the reader?

SAY IT SIMPLY

INSTEAD OF:	TRY:
afford an opportunity	allow
and/or	and _or_ or
any and all	any _or_ all
at an early date	soon
attach together	attach
attached please find	attached is
before, in the past	before _or_ in the past
concerning, regarding, respecting	about
brief in duration	brief
contemplate	plan, intend
by the use of	by
enclosed herewith is	enclosed is
I am of the opinion	I think

SAY IT SIMPLY

INSTEAD OF:	TRY:
I should appreciate your advising me	?
transmit	?
under date of	?
we are in receipt of	?
will you be good enough to	?
interpose no objections	?
in lieu of	?
is predicated on the assumption	?
perceive	?
pursuant to	?
raise the question	?
in reference to	?
with a minimum of delay	?

SUMMARY EXERCISE

Use any of the techniques we have covered - alternatives to text, short and concise sentences, simple words, etc. - to revise the following sentence:

PURPOSE

This Instruction: (1) sets forth Department of Defense policy on achieving compatible use of public and private lands in the vicinity of military airfields, (2) defines (a) required restrictions on the uses and heights of natural and man-made objects in the vicinity of air installations to provide for safety of flight and to assure that people and facilities are not concentrated in areas susceptible to aircraft accidents; and (b) desirable restrictions on land use to assure its compatibility with the characteristics, including noise, of air installations operations; (3) describes the procedures by which Air Installations Compatible Use Zones may be defined; and (4) provides policy on the extent of Government interest in real property within these zones which may be retained or acquired to protect the operational capability of active military airfields (subject in each case to the availability of required authorizations and appropriations).

FINAL EXERCISE: CLEAR WRITING

Use any technique covered in this workshop to revise the following sentence.

PURPOSE

(handwritten annotations: SUPERFLUOUS, COMPLEX, MEANING?, SAFE FLIGHT, NOUN STRING, PASSIVE, MEANING?, PRESUPPOSED?)

This Instruction: (1) sets forth Department of Defense policy on achieving compatible use of public and private lands in the vicinity of military airfields, (2) defines (a) required restrictions on the uses and heights of natural and man-made objects in the vicinity of air installations to provide for safety of flight and to assure that people and facilities are not concentrated in areas susceptible to aircraft accidents; and (b) desirable restrictions on land use to assure its compatibility with the characteristics, including noise, of air installations operations; (3) describes the procedures by which Air Installations Compatible Use Zones may be defined; and (4) provides policy on the extent of Government interest in real property within these zones which may be retained or acquired to protect the operational capability of active military airfields (subject in each case to the availability of required authorizations and appropriations).

(handwritten: THIS SENTENCE CONSISTS OF 138 WORDS)

SUGGESTED REWRITE

PURPOSE:

Describes Department of Defense policy on -

- use of land near military airfields,

- limits on uses and heights of objects near military airfields,

- limits on land use near military airfields,

- Air Installations Compatible Use Zone, and

- government interest in property within Air Installations Compatible Use Zones.